

The Stone and the Ivy: Music and Philosophy in *Antagonisme*
by Xavier Darasse, on a Text by Alain Badiou

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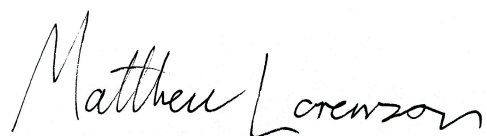
A thesis submitted for the degree of
Doctor of Philosophy of
The Australian National University

April 2015

Declaration

I, Matthew Lorenzon, declare that the PhD thesis entitled “The Stone and the Ivy: Music and Philosophy in *Antagonisme* by Xavier Darasse, on a Text by Alain Badiou” is my own work except where otherwise indicated.

Signed,

A handwritten signature in black ink that reads "Matthew Lorenzon". The signature is written in a cursive style with a large, stylized 'M' and 'L'.

Matthew Lorenzon

27 March 2015

Abstract

This thesis asks how music and philosophy interact in *Antagonisme* by Xavier Darasse. *Antagonisme* is a chamber work for piano, marimba, vibraphone, violin and narrator composed for the 1965 *concours de composition* at the Conservatoire de Paris on a text by Alain Badiou. Through the first ever study of correspondence, sketches and scores relating to the work, the thesis argues that Darasse responded to Badiou's text through an unprecedented confrontation of serial procedures with Messiaen's technique of interversion. Through original analyses of Messiaen's writings on and uses of interversion, the thesis argues that Messiaen and Darasse affirmed order, as sequence or ordinality, as a distinct musical parameter alongside the conventional serial parameters of pitch, duration, dynamics, timbre and articulation.

By comparing Alain Badiou's notion of a musical "situation" and Karl Popper's "problem situation," the thesis argues that the methodology best suited to studying the interaction of music and philosophy in *Antagonisme* takes into account both the immanent, musical problems at stake in the work and the broader contextual problems that Darasse and Badiou faced. This methodology integrates critical editing, music analysis and contextual criticism as distinct and equally important parts of the study.

The thesis shows how Badiou's text reflects its philosophical context, including structuralist debates around subjectivity and formal autonomy in serial works. The text also reflects the transition from Jean-Paul Sartre's existentialism to the Marxist structuralism of Louis Althusser in Badiou's early work and that of his contemporaries.

Darasse's musical response to Badiou's text is first considered from a semiological perspective. After unravelling layers of ironic text-music relationships, it is argued that the relationship of text and music in *Antagonisme* must be considered as more than word-painting. Darasse's innovative use of fundamental musical materials must be examined in its relationship to Badiou's first theoretical article, completed in the same month as *Antagonisme*'s première, "Autonomy of the Aesthetic Process."

The issue of musical autonomy is both immanent to the work and essential to the tasks required in its study. The critical edition provided in an appendix of this thesis is an organ of thought in this regard. An edition representing the music's most complete response to the text differs greatly from any extant version of the manuscript

or the composer's final intentions. The editor must make significant interventions, including material from the sketches that were never included in the manuscript or performance scores. In concluding the thesis, Badiou's mature philosophy is convoked once more to argue that musicology can actively affirm the musical novelty of Darasse's score.

Acknowledgements

Antagonisme will be fifty years old when this thesis falls under fresh sets of eyes. Around this age, archival materials undergo a rite of passage where they are either placed under a new, stronger lock for posterity, or disposed of. Under these changing circumstances, the researcher often has to engage with a combination of living and deceased creators and their gatekeepers. As I began this study, it quickly became apparent that I was at the mercy of a handful of guardians and keepers of keys who knew where these ephemeral documents were from one moment to the next. I would like to thank Dominique Hausfater and Évelyne Feugier at the Médiathèque Hector Berlioz, who helped me access the Fonds Xavier Darasse. Thank you as well to Géraud de Lavedan from the Archives Municipales de Toulouse. I would like to thank Isabelle Vodoz and Alain Badiou for materialising documents from deep in Badiou's personal archive, as well as Irène Deliège for helping me solve the mystery of the disappearing article. I would like to extend my thanks to the Darasse family for allowing copies to be made of the sketches and scores so that I could perform preliminary studies in distant Canberra and Melbourne.

I would like to thank my supervisors throughout the project: Alistair Noble, Peter Tregear and Paul Pickering, for their invaluable advice and provocations. I would like to extend my gratitude once more to Alistair Noble, as well as to François Nicolas and Roy Howat for acting as mentors outside of any institutional injunction. I was lucky to meet people through the study who, though they may not be aware of it from the brevity of our meetings, contributed insight and encouragement to the project, including Heath Lees, Tomas Lacôte, Yves Balmer, Christopher Murray, Richard Toop, Marguerite Bolland, Allan Walker, Larry Sitsky and Chris Dench.

Lastly, I would like to thank Hannah Lane for entertaining my harebrained ideas well before they reached the—I hope—defensible form presented here.

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1. Introduction

Towards the end of 1964, the author Alain Badiou wrote to the organist and composer Xavier Darasse: “We have to start some day.”¹ Despite both growing up in Toulouse, Badiou and Darasse were not long-term acquaintances. Badiou remembers meeting Darasse during a music festival in the town of Saverdun in the early 1960s.² It is unclear who proposed a collaboration for Darasse’s entry in the 1965 *concours de composition* at the Conservatoire de Paris. However the decision transpired, one can imagine the project’s heightened sense of occasion. Both in their early thirties, Badiou and Darasse were beginning to make their marks in their fields. Badiou, a high school teacher in Reims, had just published an acclaimed first novel and was distinguishing himself among a group gathered around Louis Althusser at the École Normale Supérieure.³ Darasse and Badiou’s collaboration, *Antagonisme*, saw its première on 18 June 1965. That same month, Badiou completed his first theoretical article, “Autonomy of the Aesthetic Process.”

What can be made of this historical coincidence at such a pivotal moment in the collaborators’ lives? This thesis asks how music and philosophy interacted during the composition of *Antagonisme*. If it appears a somewhat long-winded study of a single work, this is because the circumstances of *Antagonisme* are so suggestive. At the same time, little insight into music, philosophy or the nature of musico-philosophical collaboration will be gained by haphazardly positing ideological connections between Badiou and Darasse’s respective worlds. Instead, the thesis asks precisely which relationships between *Antagonisme*’s music, text and context can be justified before arguing that musicological discourse must “take the music’s side” and affirm the musical innovations it finds with or without the composer’s corroborative testimony.

Darasse studied composition under Jean Rivier in his last years at the Conservatoire, a move precipitated by his *premier second grand prix* at the 1965

¹ Alain Badiou to Xavier Darasse, 1964, Fonds Xavier Darasse, Msc31.7, Médiathèque Hector Berlioz, Paris. All translations are by the author unless indicated otherwise.

² Personal communication, 21 November 2014.

³ A chapter from Badiou’s novel *Almagestes* was introduced by Simone de Beauvoir in *Les Temps Modernes*: “Sur ‘Almagestes’,” *Les temps modernes* 19 (1964): 1187–88.

concours du Prix de Rome de musique.⁴ Darasse's was the highest prize awarded that year. *Antagonisme* for piano, marimba, vibraphone, violin and narrator was Darasse's first piece in an unrestrainedly contemporary idiom. It was the first work in a career that included over 70 original compositions. Most of these works were composed during an intense period of activity following a car accident on 6 October 1976 that severed his right arm and all but ended his career as a performer.⁵

Antagonisme shows Darasse exploring the experimental techniques of his teacher and "master,"⁶ Olivier Messiaen. Details of Messiaen and Darasse's relationship may be gleaned from circumstantial evidence. Darasse spent three years in Messiaen's Philosophy of Music class between 1958 and 1961,⁷ returning to his Music Analysis class in 1962–3 to receive a first prize.⁸ During his years at the Conservatoire he also gained first prizes in the harmony class of Maurice Duruflé, in fugue and counterpoint with Simone Plé-Caussade, as well as in organ and improvisation under the tutelage of Marcel Dupré.⁹ Darasse was steeped in the French tradition of organ playing. Dupré taught Messiaen, Darasse and Darasse's mother, who was herself organist at the Saint-Étienne Cathedral in Toulouse.¹⁰

Of the contemporary organ repertoire, Darasse was particularly dedicated to Messiaen's works. At a recent conference dedicated to Darasse,¹¹ numerous speakers commented upon Darasse's stimulating performances of Messiaen's music. Jésus Aguila remarked that Darasse performed the entirety of Messiaen's organ works on Toulouse's organs.¹² The writer and journalist Gil Pressnitzer remembers being "converted" to Messiaen's music "step by step" through Darasse's private concerts of Messiaen's organ music at the Saint-Étienne Cathedral.¹³ Darasse was esteemed in return by Messiaen, who singled him out as one of the few contemporary composers

⁴ Michel Roquebert, "Xavier Darasse, portrait," paper presented at Xavier Darasse : le passeur de musique (1934–1992), Toulouse, 19–21 October, 2012, <http://www.toulouse-les-orgues.org/accueil/actualites/colloque-xavier-darasse-486.html?lang=fr>.

⁵ Jésus Aguila, "Xavier Darasse compositeur et créateur : quelques repères," paper presented at Xavier Darasse : le passeur de musique (1934–1992).

⁶ Gil Pressnitzer, "Mes années Darasse," paper presented at Xavier Darasse : le passeur de musique (1934–1992).

⁷ Jean Boivin, *La classe de Messiaen* (Paris: Christian Bourgois, 1995), 134, 420–21.

⁸ ———, *La classe de Messiaen*. 423.

⁹ Roquebert, "Xavier Darasse, portrait."

¹⁰ ———, "Xavier Darasse, portrait."

¹¹ Xavier Darasse : le passeur de musique (1934–1992), Toulouse, 19–21 October, 2012, <http://www.toulouse-les-orgues.org/accueil/actualites/colloque-xavier-darasse-486.html?lang=fr>.

¹² Aguila, "Xavier Darasse."

¹³ Pressnitzer, "Mes années Darasse."

interested in the organ.¹⁴ Upon the publication of *Méditations sur le mystère de la Sainte-Trinité* on 3 April 1974, Messiaen sent Darasse a copy of the score.¹⁵ Messiaen would not just have been a musical influence, but an intellectual one as well. In his Philosophy of Music class (a title suggested by Dupré), Messiaen lectured on Henri Bergson, Louis de Broglie and, as Messiaen put it, “[i]n the end piles of things of which we had never spoken at the Conservatoire and which must have bored the students a lot.”¹⁶

Antagonisme provided the opportunity for Darasse and Badiou to convoke and transform their philosophical and musical situations. One can hardly assemble a more contrasting group of thinkers from the period than Gaston Bachelard, Jean-Paul Sartre, Claude Lévi-Strauss and Louis Althusser. They are each, however, found in various proximities to *Antagonisme*. Badiou’s “Autonomy of the Aesthetic Process” was written within the context of a seminar on the novel that Badiou delivered at the ENS in the spring of 1965 upon Althusser’s invitation.¹⁷ Badiou attended the ENS between 1956 and 1961,¹⁸ arriving with a Sartrean foundation reflected in his first novels. Today, Badiou refers to both Althusser and Sartre as his philosophical “masters,”¹⁹ but in the works of 1964–65 a stark difference can be measured between the Sartrean use of voice in *Almagestes* and the hermetic, structuralist theory of artistic production of “Autonomy.” The article challenges the Marxist practice of framing art as ideology and presents a tentative theory of a mode of aesthetic production independent of economic, scientific and ideological modes of production. The text of *Antagonisme* may also be read as a condemnation of Lévi-Strauss’ anti-serialist invective published

¹⁴ Claude Samuel, *Music and Color: Conversations with Claude Samuel*, trans. E. Thomas Glasow (Portland: Amadeus Press, 1994), 121.

¹⁵ Peter Hill and Nigel Simeone, *Messiaen* (New Haven: Yale University Press, 2005), 295.

¹⁶ Boivin, *La classe de Messiaen*, 134.

¹⁷ Peter Hallward, “Badiou and the Logic of Interruption,” in *Concept and Form: Key Texts from the Cahiers pour l’Analyse*, ed. Peter Hallward and Knox Peden, 2 vols., vol. 1 (London: Verso, 2012), 127.

¹⁸ Peter Hallward and Alain Badiou, “Theory from Structure to Subject: An Interview with Alain Badiou,” in *Concept and Form*, vol. 2, 273.

¹⁹ Badiou recently stated in an interview that “One only truly becomes a philosopher when one becomes the disciple of someone. I do not believe that there is another true “becoming” than that of becoming the disciple of a Master, who can be living or dead This is something that I am always trying to communicate to my students, that philosophy does not consist in studying, in an attentive and eclectic manner, a constituted field, ... but that the point of the desire of thought is always under the signifier of a Master ... [linked] to a work, to a figure, to a name and by consequence also to a moment where philosophy becomes something other than the doctrinal and academic element of its presentation, but where ... it is embodied.” Christine Goémé and Alain Badiou, “Alain Badiou,” *Le bon plaisir*, 11 November (Paris: France Culture, 1995).

the same year in the “Overture” to *The Raw and the Cooked*.²⁰ Bachelard’s contribution is perhaps the most circuitous and interesting. While Bachelard’s theory of science was an essential reference for Althusser and Badiou, it was also important for Messiaen, who performs an unprecedented application of Bachelard’s theory of time to musical composition—in particular, in relation to his technique of interverson—in his *Traité de rythme, de couleur et d’ornithologie*.²¹

Musically, *Antagonisme* reflects three conflicting musical influences: Serialism such as it is associated with the Darmstadt Summer School and theorised in Pierre Boulez’s 1963 book *Boulez on Music Today*, the neoclassicism of the *concours de Rome* and Messiaen’s experimental techniques. Just as Messiaen encouraged a philosophical mind at the Conservatoire, so too were students at the ENS encouraged to engage with contemporary music. Darasse and Badiou were both contemporaries of the concerts of the Domaine musical inaugurated by Boulez,²² arriving in Paris in 1952 and 1954 respectively.²³ Badiou remembers that the ENS’s Director, Jean Hyppolite, encouraged students to attend the concerts, as well as to engage widely with contemporary art, literature and music.²⁴ As a student at the Conservatoire de Paris, Darasse was caught between the academicism of an older generation of teachers represented by Rivier and the avant-garde represented within the Conservatoire by Messiaen. As the process of composition advanced, *Antagonisme* would not just passively reflect these philosophical and musical contexts, but become an active organ of thought within them.

Though *Antagonisme* was ultimately unsuccessful at the *concours*, the experiment set in train a series of three more “*Antagonismes*”—without texts—composed over the following decade. The second of these, composed for the 1966 *concours de composition*, saw Darasse leave the Conservatoire with a second prize.

²⁰ Claude Lévi-Strauss, *Le Cru et le cuit* (Paris: Plon, 1964).

²¹ Messiaen, *Traité de rythme, de couleur et d’ornithologie*, vol. 1, 7 vols. (Paris: Christian Bourgois, 1995), 44–47.

²² The concerts of the Domaine musical began in 1953 under the leadership of Boulez. Gilbert Amy took over the directorship of the concerts between 1967–73. For a comprehensive history of the Domaine musical, see Jésus Aguila, *Le Domaine musical: Pierre Boulez et vingt ans de création contemporaine* (Paris: Fayard, 1992).

²³ For biographical details, see Claude Chamfray, “Xavier Darasse,” *Le courrier musical de France* 61 (1978): 39–40. Alain Badiou’s interview with Peter Hallward for the *Concept and Form* project is a valuable source of biographical information from this period. It is somewhat more detailed in the original version than in its published translation. Alain Badiou and Peter Hallward, “D’une théorie de la structure à une théorie du sujet : un entretien avec Alain Badiou,” *Concept and Form: The Cahiers pour l’analyse and Contemporary French Thought*, accessed 18 January, 2013, <http://cahiers.kingston.ac.uk/interviews/badiou.html>.

²⁴ Goémé and Badiou, “Alain Badiou.”

Darasse would eventually take the position of Director of the Conservatoire de Paris in 1991, passing away the next year from complications from cancer.²⁵ In his short time as Director of the Conservatoire he distinguished himself by his broad enthusiasm for the study of Western art music, creating both the conservatorium's first fortepiano and twentieth-century music writing classes.²⁶

Aims

Antagonisme is an unprecedentedly well-documented collaboration between a musician and a philosopher.²⁷ Appearing at a key moment in Badiou's philosophical development, the piece is a window onto his multi-faceted, life-long relationship to music.²⁸ Darasse's score provides new perspectives on the composer's musical development, as well as the legacy of Messiaen's experimental techniques.²⁹ Given the rarity of such a well-recorded, musico-philosophical juncture, this thesis reconstructs Darasse's response to Badiou's text through a fine-grained intellectual-historical and music-analytical investigation. The thesis asks: "How did Badiou's text reflect its philosophical context? How did Darasse respond to that text with the resources of his musical context?" The study then broadens its scope to address

²⁵ Frank Langlois, *Xavier Darasse: 1934–1992* (Paris: Salabert, 1994).

²⁶ Tomas Lacôte, "L'Orgue et les signes : quelques notations sur *Organum II* de Xavier Darasse (1934–1992)" *La Revue du conservatoire* 2 (2013). A distinction is maintained in the French conservatoire system between the techniques of "music-writing" and music theory. Thomas Christensen proposes that this distinction is inherited from the twelfth-century distinction between *musica speculativa* and *musica activa*. "Introduction," in *The Cambridge History of Western Music Theory*, ed. Thomas Christensen (Cambridge: Cambridge University Press, 2002).

²⁷ As will be detailed below, the main body of materials relating to *Antagonisme* are held in the Fonds Xavier Darasse at the Médiathèque Hector Berlioz, Paris. Other collaborations include Badiou's musical collaborations with Georges Aperghis and François Nicolas: Georges Aperghis, *L'Écharpe rouge* (Paris: Salabert, 1984); François Nicolas, *Dans la distance*, 1994, private collection. See also René Leibowitz's *Toccata* inspired by Claude Lévi-Strauss: Jan Maguire, "René Leibowitz (II): The Music." *Tempo* 132 (1980): 2–10.

²⁸ This is the first study of *Antagonisme* and the first to recognise the importance of Messiaen in Badiou's theoretical work. Discussions of Badiou's writings on Schoenberg and Wagner appear in J. P. E. Harper-Scott, *The Quilting Points of Musical Modernism: Revolution, Reaction and William Walton*. (Cambridge: Cambridge Books Online, 2013); Alex Ling, *Badiou and Cinema* (Edinburgh: Edinburgh University Press, 2011), 25–26; Tomas McCauley et al., eds. "Opera and Philosophy," special issue, *Opera Quarterly* 29, no. 3–4, 2013; François Nicolas, "Badiou et la musique: une enquête de musicien," in *Autour d'Alain Badiou*, ed. Isabelle Vodoz et al. (Paris: Germina, 2011): 145–66.

²⁹ While Messiaen's experimental techniques are starting to receive greater attention, this is the first study of which I am aware of one of his students adopting and extending the technique of interversion. This thesis builds in particular on the work of Allen Forte and Amy Bauer. Amy Bauer, "The Impossible Charm of Messiaen's *Chronochromie*," in *Messiaen Studies*, ed. Robert Sholl (Cambridge: Cambridge University Press, 2007): 145–67; Allen Forte, "Olivier Messiaen as Serialist." *Music Analysis* 21, no. 1 (2002): 3–34.

questions of intentionality and musical autonomy that were as important to the creation of the work as they are to its study.

Antagonisme shows a composer and a philosopher—indeed a generation of philosophers and composers working in France prior to the events of May 1968—grappling with the epistemology and ontology of music. Music was rarely theorised alone during this time. Studies of pre-1968 French philosophy have stressed the development of the philosophy of science as a distinct discipline.³⁰ For the first time, this thesis shows how diverse theorists, including Bachelard, Badiou, Althusser, Lévi-Strauss and Popper, theorised music in contra-distinction to science and philosophy. Composers were not completely external to these discussions, but often participants within them. By stressing Messiaen’s radical reading of Bachelard and showing how Darasse reflects upon the body of thought represented in Badiou’s text, this thesis contributes to a body of literature on composers’ engagements with contemporaneous philosophical debates.³¹

As well as forming part of *Antagonisme*’s context, questions of intentionality and musical autonomy arose while researching this thesis and editing the accompanying score. The score in appendix three is provided as a courtesy to accompany the analysis in chapter seven. As chapter eight shows, it is also a valuable organ of thought that is shaped by both the scholarly, analytical and philosophical outcomes of the thesis. The editing process raised the questions: “Was Darasse completely aware of how his music related to its philosophical context and does it matter to us whether he was? Can we say that music and philosophy related as disciplines at the time if their relationship is only evident after significant musicological labour?” The thesis bridges differing answers to these questions from the fields of music editing, music analysis and criticism by following Badiou’s thought on music from the time of *Antagonisme* until today. The thesis builds on recent literature on Badiou that criticises the hermeticism of Badiou’s Platonist

³⁰ See Gary Gutting, *French Philosophy in the Twentieth Century* (Cambridge: Cambridge University Press, 2001); Knox Peden, *Spinoza Contra Phenomenology: French Rationalism from Cavaillès to Deleuze* (Stanford: Stanford University Press, 2014).

³¹ See Jessica Wiskus, “Thought Time and Musical Time,” *Angelaki* 11, no. 2 (2006): 179-89; Jonathan Goldman, *The Musical Language of Pierre Boulez* (Cambridge: Cambridge University Press, 2011); Edward Campbell, *Boulez, Music and Philosophy* (Cambridge: Cambridge University Press, 2010); Pascal Decroupet, “Comment Boulez pense sa musique au début des années soixante,” in *Pli selon Pli de Pierre Boulez: Entretien et études*, ed. Philippe Albèra et al. (Geneva: Contrechamps, 2003): 49-57. Jonathan Goldman et al., eds. *La pensée de Pierre Boulez à travers ses écrits*. (Paris: Delatour France, 2010).

ontology.³² I argue that compatible notions from an unlikely point of comparison, Karl Popper, provide a language with which to discuss the musical innovations and complex interdisciplinarity of *Antagonisme*.

Methodology

Since this thesis is the first study of *Antagonisme*, research began “from the ground up.” My research method passed from critical editing, through musical and textual analysis to contextual criticism, with allowances for the reflexive effects of the latter upon the former stages of the investigation. The method adopted here is that used by Célestin Deliège when researching twentieth-century art music within its ideological contexts.³³ Deliège follows five steps,³⁴ which include two rounds of analysis and evaluation. The first stage is a broad sweep of contextual information relating to a particular politico- musico- or philosophico-historical conjuncture. In this case, the collaboration between Badiou and Darasse was chosen as a concrete meeting of musical and philosophical spheres in pre-1968 Paris. This historical research is followed by an analysis, in isolation, of relevant musical works. This thesis included the additional step of arranging the disparate score materials into an analysable order. A preliminary consideration of the relationship of the works and their context is drawn up in step three and is then tested in step four. The final step re-evaluates the initial data and its initial synthesis, culling hasty assumptions and “erroneous predictions.”³⁵

A study following Deliège’s research programme could be presented in several ways. In this thesis, I privilege the latter over the former stages of research. This leaves room to consider the implications of the study’s results for music editing and Badiou’s mature philosophy in chapters eight and nine. Darasse leaves few clues as to how he composed *Antagonisme*. I conducted a good deal of *a priori* pitch-class set analysis and semiological analysis before forming an idea of how Darasse composed the piece. The thesis could have begun with an analytical survey before

³² In particular, Peter Hallward, *Badiou: A Subject to Truth* (Minneapolis: University of Minnesota Press, 2003); Harper-Scott, *The Quilting Points*.

³³ Célestin Deliège, *Invention musicale et idéologies* (Paris: Christian Bourgois, 1986); ———, *Invention musicale et idéologies 2 : Mutations historiques et lectures critiques de la modernité* (Wavre: Éditions Mardaga, 2007). A third volume of Deliège’s writings is forthcoming under the title *Invention musicale et idéologies 3*.

³⁴ ———, *Invention musicale et idéologies*, 45–6.

³⁵ ———, *Invention musicale et idéologies*, 46.

refining the analysis through contextual research. This form would involve presenting a great deal of redundant material before the essential argument was revealed. Instead, chapters three to six present only those parts of the first cycle of speculation that led directly to the focussed analysis of the second. They argue that the analysis of the relationship of text and music in chapter seven must exceed considerations of word-painting and examine Darasse's innovative use of his basic musical materials. Though I hope the reader finds the analytical results in chapter seven as exciting as I do, I have resisted the temptation to present them at the beginning of the thesis and then retroactively justify them by presenting the contextual analysis. The musical analysis in chapter seven is profoundly conditioned by the preceding contextual investigation; to present it as an exercise in naïve analysis would be unsatisfying for the reader.

The method employed here begins empirically, but ends on a speculative, if not polemical, note. It makes qualified judgments about the relationship between music and text in *Antagonisme*, while accepting that these views may be proven wrong by further research with different aims. This is far from Deliège's initial methodological conception. Deliège puzzlingly claims that his methodology does not subscribe to any ideology because it includes tests of validation.³⁶ As with New Musicology's horror of positivism,³⁷ there is a disciplinary impetus behind this assertion. Deliège remembers how in 1967 researchers would simply choose a philosophical camp and discover the instability of their terms after the fact. There seemed to be a virtue in making an explicit statement of method that avoided any particular conceptual tools.

Many musicologists today would certainly disagree that the empirical and formalist bases of Deliège's methodology are devoid of ideology. In the introduction to the recent collection of essays *Music and Ideology*, Mark Carroll dismisses formal analysis out of hand by quoting Christopher Norris in a very different mode to that found in this thesis. Carroll writes: "[T]he formalist position is, as Christopher Norris rightly pointed out some time ago, 'counter-intuitive' to the very nature of research into the social dimensions of music."³⁸ Carroll is accepting a position at the heart of the critical turn in musicology in the 1980s and repeated by musicologists such as Georgina Born and Philip Bohlman today. This position holds that the formal and

³⁶ ———, *Invention musicale et idéologies*, 46.

³⁷ See the discussion of positivism's representation in musicological literature in chapter nine.

³⁸ Mark Carroll, "Introduction," in *Music and Ideology*, ed. Mark Carroll (Farnham: Ashgate, 2012), xii.

empirical analysis of scores is incompatible with criticism.³⁹ Bohlman stated this attitude explicitly in 1993, while adding that the attempt to depoliticise music is in itself a political act:

I shall push my point even further and argue that the reason for the field's imagined escape into a world without politics results from its essentializing of music itself. This act of essentializing music, the very attempt to depoliticise it, has become the most hegemonic form of politicizing music.⁴⁰

Is there no room for an approach that considers both the formal and political properties of music in turn? Recently, Born has taken a more synthetic approach to the competing political and formal claims of music scholarship in her call for a “relational musicology.”⁴¹ Born argues that social and contextual elements must be included within discussions of musical ontology. I would like to think that this study constitutes an example of a “non-relativist, relational musicology” resulting from the “comparative study of distinct ontologies of music [...]”⁴² However, Born is more precisely advocating a comparison of the ontologies of musicology, ethnomusicology and popular music studies. The relative ontologies of critical editing and music analysis do not seem to have been invited to the party. This leads me to ask whether the interdisciplinarity of relational musicology is not really the domination of scholarly methods by those of anthropology and sociology. Not only are more balanced interdisciplinary models possible, they have already existed in the nuanced ontologies of musicologists crassly dismissed in musicology's critical turn as overly positivist.

While formal and contextual analysis may be intuitively opposed, their apparent opposition is exaggerated by the generational backlash that occurs within institutions filling curricula with limited means and time. As Joseph Kerman so genially put it thirty years ago:

³⁹ See in particular Leo Treitler, “The Power of Positivist Thinking,” *Journal of the American Musicological Society* 42, no. 2 (1989): 375–402; Georgina Born, “For a Relational Musicology: Music and Interdisciplinarity, Beyond the Practice Turn,” *Journal of the Royal Musical Association* 135, no. 2 (2010): 204–43; Philip Bohlman, “Musicology as a Political Act,” *Journal of Musicology* 11, no. 4 (1993): 411–63. Further discussion of the tension between positivist and critical methods in musicology is given in chapter eight.

⁴⁰ Bohlman, “Musicology as Political Act,” 419.

⁴¹ Born, “For a Relational Musicology,” 209.

⁴² Born, “For a Relational Musicology,” 241.

Since young musicologists were so insistently taught to transcribe the archaic notation of the early music into modern dress, it is hardly surprising they tended to become editors of critical editions and, in many cases, not much else. Dropping the notation course from the required list, some of us felt, was a first step in the liberation of musicology.⁴³

Kerman's critique of positivist musicology was not written in a spirit of derision towards positivist scholarship *per se*, but rather towards a perceived imbalance in the type of scholarship being performed:

I have written slightly above about the making of editions, because I think there is something wrong with a discipline that spends (or spent) so much more of its time establishing texts than thinking about the texts thus established.⁴⁴

The eclectic methodology proposed here is not new. Leo Treitler writes in glowing terms of Oliver Strunk's own philological combination of positivist rigor and critical nous.⁴⁵ The positivist musicological programme was founded upon the belief that the determination of facts would lead to a second, critical stage of activity.⁴⁶ Some would even argue that critical editors in musicology and elsewhere have long interrogated their sources with deconstructive rigour.⁴⁷ It may be better to say today, along with Giles Hooper, that a clean divide between scholarly and critical practices is rarely consciously practiced and that diverse methods coexist in a state of creative anarchy.⁴⁸

By rejecting the formal anchors of music scholarship, musicology risks becoming enmired in a static understanding of musical form, musical modernism and the history of Western art music. Carroll reassures the reader that the essays in his collection are not the products of Boulez's "musical sophists" who, lacking sufficient critical nous, "with just a few strokes of the pen, connect everything with everything, and anything with anything."⁴⁹ But by severing formal and positivist research from critical practice, Carroll is exercising an equally-fluid sophistry. When speaking of the

⁴³ Joseph Kerman, *Contemplating Music: Challenges to Musicology* (Cambridge: Harvard University Press, 1985), 46.

⁴⁴ ———, *Contemplating Music*, 48.

⁴⁵ Treitler, "The Power of Positivist Thinking," 382–7.

⁴⁶ Kerman, *Contemplating Music*, 43–44.

⁴⁷ James Grier, *The Critical Editing of Music* (Cambridge: Cambridge University Press, 1996), 6.

⁴⁸ See in particular Giles Hooper's discussion of this issue in Giles Hooper, *The Discourse of Musicology* (Aldershot: Ashgate, 2006), 34–40.

⁴⁹ Boulez in Carroll, "Introduction," xii.

social dimensions of music one must still ask “Of which music am I speaking? Where and what is it?” What if, in asking these questions the music of which one speaks is not what it seems to be? If musicology is going to be a space for anything more than the journalistic dissemination of opinion, then research must continuously challenge its assumptions by passing through empirical, analytical and critical stages. I could not advocate for the truly pluralistic possibilities of positivist musicology more eloquently than did Annegret Fauser in a recent book chapter:

[W]ithout positivist historical work, the postmodern interpretation—at least in the context of western art music—will remain necessarily limited to the dominant cultures already established: This is seen clearly in the writings of Susan McClary, Lawrence Kramer and Edward Said. Whatever one says about positivist musicology, one thing is certain, which is that this doctrine takes historical alterity more seriously than any other disciplinary approach.⁵⁰

Criticism ultimately loses out when the cord tying scholarship and criticism is cut.

This thesis places formal and contextual considerations in a sequence rather than a hierarchy through an original comparison of Badiou’s notion of a musical “situation” and Popper’s “problem situation.”⁵¹ Broadly speaking, a musical situation is a state of musical practice as represented by a body of performances, recordings and scores. Badiou’s examples of musical situations change throughout his writings, but its closest natural language cognate may be “style.” As he writes in his *Handbook of Inaesthetics*:

In music, rather than referring to the tonal system, which is far too structural a *dispositif*, one will refer to the ‘classical style’ in the sense that Charles Rosen speaks of it, that is, as an identifiable sequence stretching out between Haydn and Beethoven.⁵²

Popper’s epistemology admits and indeed privileges the formal autonomy of musical style, but considers the semi-autonomous object of music as only one within many elements of a composer’s problem situation when producing a work.

⁵⁰ Annegret Fauser, “Histoires interrompues: raconter l’histoire de la musique en France,” in *Musique et modernité en France 1900–1945*, ed. Sylvain Caron et al. (Montréal: Presses de l’Université de Montréal, 2006), 26.

⁵¹ Absolute music is discussed in terms drawn from Carl Dahlhaus, *The Idea of Absolute Music*, translated by Roger Lustig (Chicago: University of Chicago Press, 1989).

⁵² Alain Badiou, *Handbook of Inaesthetics*, trans. Alberto Toscano (Stanford: Stanford University Press, 2005), 13.

A range of original insights result from analysing *Antagonisme* in terms of an intra-musical problem of style and a densely-textured philosophical problem situation. The study provides a snapshot of France's neoclassical school of composition reticently undergoing a process of modernisation. Serialism is shown to be a plural and open-ended body of technique. The study offers a renewed understanding of Messiaen's use of order as a musical parameter in his technique of interversion. The study disassociates Messiaen's experimental techniques from the rhetoric of human limitation implicit in the "charm of impossibilities."⁵³ Instead, musicology becomes an active agent in the affirmation of new musical possibilities.

Materials

The nature of *Anatagonisme*'s documentation limits the methods of this study. Darasse and Badiou's acquaintance was fleeting and the collaboration seems to have proceeded at a distance, through letters.⁵⁴ Darasse's letters have not been preserved, making the record of correspondence one-sided. While Badiou is still available for comment, he has maintained a distance from this study apart from providing his fair copy of the text. Given the scant biographical information available, psychological speculation is left to the final chapters of the thesis. The thesis principally relies upon music analysis and intellectual history to distinguish between the specifically musical and philosophical problems at stake during *Antagonisme*'s creation.⁵⁵

While details about the personal story of Badiou and Darasse are thin, *Antagonisme* furnishes the musicologist with an unprecedentedly detailed archive of the collaborators' creative processes. Indeed, I am not aware of any collaboration between a philosopher and a musician in which the collaborators apply themselves in such good faith and where the materials are so well preserved.⁵⁶ The Fonds Xavier

⁵³ Olivier Messiaen, *The Technique of my Musical Language*, 2 vols., vol. 1 (Paris: Alphonse Leduc, 1944), 20.

⁵⁴ Darasse was living in Paris and Badiou in Reims during the creative process. In his letters, Badiou exhorts Darasse to meet him several times. The tone of the letters suggests that Badiou and Darasse did not succeed in meeting often, if at all.

⁵⁵ Without access to pre-compositional sketch material, the musical analysis is framed here in a much more speculative tone than Jonathan Goldman's study of Boulez's musical style. Jonathan Goldman, *The Musical Language of Pierre Boulez* (Cambridge: Cambridge University Press, 2011). On the other hand, Badiou's direct involvement in and letters about *Antagonisme* has allowed for a much more directed philosophical investigation than that in Edward Campbell's *Boulez, Music and Philosophy* (Cambridge: Cambridge University Press, 2010).

⁵⁶ Contenders include Badiou's musical collaborations with Georges Aperghis and François Nicolas, as well as René Leibowitz's *Toccata*.

Darasse at the Médiathèque Hector Berlioz at the Conservatoire de Paris house Badiou's letters to Darasse, which provide an overarching description of the stakes of the project and early drafts of the text.⁵⁷ Badiou's fair copy of the text is also available,⁵⁸ to which the text used in the score may be compared. Darasse did not leave behind much in the way of pre-compositional material such as pitch matrices. The compositional processes proposed in this thesis are often speculative, but corroborated by Darasse's sketches and drafts.⁵⁹ The manuscript and performance scores are also held, including Darasse's final inserts and edits.⁶⁰ The piece's mixed stylistic antecedents are available in the form of Darasse's entries for the *concours de Rome* and Messiaen's organ works.⁶¹ The piece's successors, *Antagonisme* II, III and IV, may also be examined in their manuscript and published forms.⁶²

As is detailed in chapter nine, *Antagonisme*'s composition proceeded in four stages: sketches of several episodes were made upon receipt of Badiou's first letter. Once a more complete text was available, Darasse wrote a complete draft. This draft was then transferred to a manuscript score with minor alterations. It is likely that the manuscript score predates May 1965, when Darasse was sequestered away for the *concours d'essai* of the *concours de Rome*. Darasse hurriedly deleted and rewrote several episodes before the première. These changes are preserved in the performance scores.

Chapter Summary

Chapter two defines the key concepts through which immanent musical analysis and contextual considerations may be brought together: Badiou's "situation" and Popper's

⁵⁷ Alain Badiou to Xavier Darasse, 1964, Msc31.7.

⁵⁸ Alain Badiou, *Sonate*, typescript, 1964–65, private collection of Alain Badiou.

⁵⁹ Xavier Darasse, *Sketches and Drafts of Antagonisme*, 1965, Msc31.1, Fonds Xavier Darasse, Médiathèque Hector Berlioz, Paris.

⁶⁰ ———, *Manuscript of Antagonisme*, 1965, Msc31.2, Fonds Xavier Darasse, Médiathèque Hector Berlioz, Paris; ———, *Performance scores of Antagonisme*, 1965, Msc31.4, Fonds Xavier Darasse, Médiathèque Hector Berlioz, Paris. A name in the piano performance score suggests that the pianist was one Anne Marie Verdier de Lavilléon. A note in the sketches suggests that the narrator was Michel Ferré. I have not succeeded in making contact with the performers.

⁶¹ See Olivier Messiaen, *Livre d'orgue* (Paris: Alphonse Leduc, 1953). Darasse's 1964 and 1965 entries for the *concours de Rome* are held at the Médiathèque Hector Berlioz: Xavier Darasse, *Les Rois mages*, 1964, manuscript, Rmb612, Médiathèque Hector Berlioz, Paris; ———, *Les Visions de Cassandre*, 1965, manuscript, Rmb613, Médiathèque Hector Berlioz, Paris.

⁶² ———, *Sketches and manuscript of Antagonisme II*, 1966, Msc38, Fonds Xavier Darasse, Médiathèque Hector Berlioz, Paris; ———, *Antagonisme II* (Paris: Salabert, 1976); ———, *Sketches and manuscript of Antagonisme III*, 1969, Msc42, Fonds Xavier Darasse, Médiathèque Hector Berlioz, Paris; ———, *Sketches and manuscript of Antagonisme IV*, 1972 (rev. 1976), Msc43, Fonds Xavier Darasse, Médiathèque Hector Berlioz, Paris; ———, *Antagonisme IV* (Paris: Salabert, 1976).

“problem situation.”⁶³ Representing the radically divergent disciplines of continental and analytic philosophy, this chapter finds common ground in Badiou and Popper’s belief in music’s partial formal autonomy. The two philosophers’ disciplinary distance may explain why the marked similarity between their theories of music have gone unnoticed until now. In examining Badiou’s notion of the musical situation, I show how inconsistent it is across his writings. I argue that his scattered comments on Messiaen come closest to agreeing with his own philosophical notion of an event. A survey of possible paths towards interdisciplinary considerations throughout Badiou’s work shows that Badiou’s Platonist “materialist dialectic” is not so hermetic as some critics believe.⁶⁴ The chapter identifies avenues in Badiou’s work that raise the question of the belonging of musical works to multiple artistic and political worlds. Badiou does not theorise the interworldliness of musical works in detail. To do this, Popper’s notion of problem situation is introduced. It is shown that Badiou’s materialist dialectic accords with Popper’s “three worlds,”⁶⁵ opening a door to the discussion of Badiou’s situation in the context of Popper’s problem situation.

The chapters that follow consider *Antagonisme* in terms of its situations (musical priorities) and problem situations (including extramusical priorities). They show that *Antagonisme* is essential to understanding a range of complex issues in twentieth-century music studies and philosophy. The body of the thesis also complicates the synthesis of Badiou and Popper presented in chapter two, leading to their renewed distinction around music’s capacity for radical change.

Chapter three, four and five introduce the elements of *Antagonisme*’s musical and philosophical situations. Chapter three provides the first study of the place of music in Badiou’s first novel *Almagestes*, showing how Badiou presents Mallarmé’s notion of little “m” and big “M” music through a Sartrean exterior monologue.⁶⁶ The chapter shows how Badiou’s use of exterior monologue in *Antagonisme* conflicts with the priorities of vocal accompaniment in the *concours de Rome*. Darasse’s strikingly

⁶³ Badiou’s notion of a musical situation is explained at length in Alain Badiou, “Scholium: A Musical Variant on the Metaphysics of the Subject,” in *Logics of Worlds: Being and Event*, 2 (London: Continuum, 2009). Popper’s problem situation is defined in Karl Popper, *Objective Knowledge: An Evolutionary Approach*, (Oxford: Clarendon Press, 1972). See in particular the discussion on pages 116–18. Popper shows how the notion originated in musical speculations in his autobiography *Unended Quest* (London: Collins/Fontana, 1976). 65.

⁶⁴ Badiou, *Logics of Worlds*, 4.

⁶⁵ Popper, *Objective Knowledge*, 106.

⁶⁶ I am helped in my discussion of this distinction by the work of Heath Lees, in particular *Mallarmé and Wagner: Music and Poetic Language* (Aldershot: Ashgate, 2007).

modern entry in the 1964 *concours de Rome* is symptomatic of the competition's modernisation under the Minister for Cultural Affairs André Malraux. It is argued that the relationship Badiou establishes between the text and the music through exterior monologue in *Antagonisme* is an externalisation of the artificial relationship of music and text in the obligatory *scène lyrique* of the *concours de Rome*.

Chapter four's discussion of Darasse's unconventional use of serial technique contributes to a growing body of literature breaking down stereotypes of monolithic musical modernism by revealing the diversity of serialist practices of the 1950s and 1960s.⁶⁷ The chapter argues that musical modernism is a quintessential problem of intersecting political and musical situations that easily becomes a discussion of the conflicting ideological, aesthetic and economic priorities of political and musical problem situations. As such, attempts to wrestle the term back from its detractors only engages in a false opposition instead of identifying the musical innovations of the twentieth century. Messiaen is a key reference in this regard, as his religious glosses and imagery have deflected the most ardent critics of modernism and detracted from a sophisticated understanding of his use of order as a musical parameter. In keeping with the image of Messiaen the mystic, scholars have stressed his reading of Bergson's theory of duration. Chapter four shows how Messiaen's discussion of Bergson is a prelude to his discussion of its antithesis: Bachelard's theory of the instant. The chapter shows how Messiaen justifies his use of order as a musical parameter through a radical reading of Bachelard's conservative theory of music.

Instead of Taruskin's binary of neoclassicism and modernism and Harper-Scott's focus on the emancipation of dissonance as the defining axiom of twentieth-century music,⁶⁸ the chapter picks up François Nicolas' history of serialism as a history of the theme.⁶⁹ The chapter shows how Darasse disturbs the thematic function of tone rows through unorthodox order-based permutations of his serial matrices. In doing so, the chapter introduces the notion of listening for order relationships, here called "ordinal listening," to listening for intervallic relationships, or "serial listening."

⁶⁷ See in particular: Paul Attinello et al., eds., *Other Darmstadts*, special issue, *Contemporary Music Review* 26 (Routledge, 2007); Martin Iddon, *New Music at Darmstadt: Nono, Stockhausen, Cage and Boulez* (Cambridge: Cambridge University Press, 2013).

⁶⁸ Richard Taruskin, *Music in the Early Twentieth Century*, *The Oxford History of Western Music* 5 vols., vol. 4 (Oxford: Oxford University Press, 2010). 448; Harper-Scott, *The Quilting Points*, 183.

⁶⁹ François Nicolas, "Traversée du sérialisme," *Les Conférences du Perroquet* 16, supplement to *Le Perroquet* 78, Paris, 1988.

Chapter five introduces the structuralist criticisms of serialism that are parodied in *Antagonisme*'s text. Lévi-Strauss' two theories of music are introduced. It is argued that Lévi-Strauss' earlier theory of music as language, which is contemporary with *Antagonisme*, is parodied in Badiou's text. Darasse's use of serial techniques as word-painting are then examined in the light of Lévi-Strauss' later theory of music as myth. It is shown that, while Darasse's word-painting of Badiou's text conforms to music's interpretative function in Lévi-Strauss' later theory, his use of interverson fundamentally rejects Lévi-Strauss' analogy of music and language. Another analysis of *Antagonisme* is necessary, one that takes into account Badiou's contemporaneous theoretical work and Darasse's radical confrontation of interverson and serial techniques.

Having established the scene of Darasse and Badiou's problem situations, chapters six and seven show how Badiou and Darasse responded to them in *Antagonisme*. Chapter six shows how Badiou intervened in the problem of art in Marxist aesthetics with his article "Autonomy of the Aesthetic Process." Badiou rejects the Marxist association of art with ideology. He argues that modes of aesthetic production such as that of novelistic subjectivity or the tonal system are enclosed systems that are periodically dissolved and reconstructed. However, Badiou is suspicious of the autonomous transformation of artforms, revealing a continued interest in Sartrean faith and the artist's role in musical innovation. The chapter also addresses the title of the work, showing how Maoist notions of contradiction and autonomy motivate Badiou's dialectical formal plan for the piece. I argue that, through his text for *Antagonisme*, Badiou produced a demonstration of his theory of musical autonomy.

Chapter seven is the principal analytical chapter of the thesis. It explains how Darasse responded to Badiou's injunction to exceed the poet's image of music by highlighting the disruption of serial thematicism wrought by Messiaen's order-based permutations.⁷⁰ The chapter is structured to show how Darasse plays on this

⁷⁰ Messiaen's experimental techniques are receiving increased analytical attention, including: Amy Bauer, "The Impossible Charm of Messiaen's *Chronochromie*," in *Messiaen Studies*, ed. Robert Sholl (Cambridge: Cambridge University Press, 2007); Vincent Benitez, "Reconsidering Messiaen as Serialist," *Music Analysis* 28, no. 2–3 (2009); Wai-Ling Cheong, "Messiaen's Triadic Colouration: Modes as Interversion," *Music Analysis* 21, no. 1 (2002); ———, "Rediscovering Messiaen's Invented Chords," *Acta Musicologica* 75, no. 1 (2003); ———, "Messiaen's Chord Tables: Ordering the Disordered," *Tempo* 57, no. 226 (2003); Christopher Dingle, "Sacred Machines: Fear, Mystery and Transfiguration in Messiaen's Mechanical Procedures," in *Messiaen Perspectives 2: Techniques, Influence and Reception*, ed. Christopher Dingle et al. (Aldershot: Ashgate, 2013), 13–32; Allen Forte,

ambiguity between different levels of structure, with transformations at the level of large-scale form affecting lower-order patterns in gestures and finally the rows themselves. By taking the lessons learnt in studying *Antagonisme* back to Messiaen's works, the study sheds new light on Messiaen's use of interversion in the *Livre d'orgue*.

Chapter eight considers the implications of this study for the editing of the score provided in appendix three. I argue that editing the score that best reflects the music's response to the text involves significant editorial intervention including the radical incorporation of draft material. The constructive editing rationale developed in this chapter also raises issues of intentionality in the composition process. If music and philosophy can be seen to respond to one another in a piece when there is no evidence to suggest that the composer or philosopher were aware of this being so, can one still speak of an influence or a rapport between the two?⁷¹

Chapter nine answers this question in the affirmative by returning to Badiou and Popper. The chapter delves into Bachelard, Popper and Badiou's biographical details to show how their different relationships to musical practice determine their philosophy of music. I argue that, of the philosophers discussed, Badiou alone stands by Messiaen in asserting the possibility of musical innovation through the radical affirmation of truth procedures in art. Including Darasse's sketch material becomes one way in which musicology can affirm Messiaen and Darasse's radical use of order as a musical parameter.

The conclusion considers *Antagonisme* within the context of Darasse and Badiou's later works. The absence of text in Darasse's *Antagonisme II* is taken as reflecting the perceived weaknesses of the original work. The return of *Antagonisme*'s images of the stone and the ivy in *Logics of Worlds* is taken as indicative of Badiou's

"Olivier Messiaen as Serialist," *Music Analysis* 21, no. 1 (2002); Gareth Healey, "Messiaen and the Concept of 'Personnages'," *Tempo* 58, no. 230 (2004); Stefan Keym, "'The art of the most intensive contrast': Olivier Messiaen's mosaic form up to its apotheosis in *Saint François d'Assise*," in *Messiaen Studies*; Christoph Neidhöfer, "A Theory of Harmony and Voice Leading for the Music of Olivier Messiaen," *Music Theory Spectrum* 27, no. 1 (2005); Arnold Whittall, "Messiaen and twentieth-century music," in *Messiaen Studies*.

⁷¹ A great deal of ink has been spilled in literary studies on the role of the author and their authority over readings of their work. While chapter eight discusses intentional fallacies in relation to New Criticism in literature, the thesis avoids an extended discussion of the issue of authorship within continental philosophy. This is because theoretical efforts of writers including Michel Foucault are geared towards an investigation into the social role of the author and authorship rather than an investigation into the problems of judgment that arise in scholarly research and critical editing when authorial testimony is absent. See for instance Michel Foucault, "What is an author?," trans. Josué V. Harart, in *Literary Criticism*, ed. Robert Con Davis et al. (New York: Longman, 1998): 364–76.

changing attitudes towards musical autonomy. This thesis provides a glimpse into a philosopher and a composer working at the unstable edge of their disciplines. Unexpected conclusions arise from the combination of positivist, analytic and critical research methodologies. Serial technique, Messiaen's experimental techniques, structuralist debates, structuralist Marxism and the reception of logical positivism in musicology all reward renewed scrutiny in this thesis. Combining music analysis and intellectual history in the analysis of *Antagonisme* tells a story that also challenges Badiou's contemporary philosophy of music, forging new paths between continental and analytic philosophy. Ultimately, the study suggests that a collaboration may transcend the awareness of the collaborators, with music and philosophy interfacing in ways only evident after significant musicological work.

2. Situation and Problem Situation

This chapter outlines and discusses the two central concepts of this thesis' method: Badiou's situation and Popper's problem situation. It may seem counterintuitive to speak of a trenchant Maoist like Badiou and an openly anti-Marxist philosopher like Popper in the same sentence.¹ Indeed, the arrival of Popper's work in English—and its neglect in favour of Bachelard in France—has been considered a defining moment of rupture between continental and analytic philosophy.² The chapter argues that, so far as their philosophies of music are concerned, the two thinkers develop remarkably compatible ideas. This is due to their belief in qualified notions of musical autonomy, notions that are identified in Badiou's materialist dialectic and Popper's theory of the three worlds with the help of Christopher Norris' notion of "qualified" Platonism in *Platonism, Music and the Listener's Share*.³ The chapter begins by showing how a qualified notion of musical autonomy is central to Badiou's proposal for *Antagonisme* in his first letter to Darasse. The chapter then traces qualified notions of musical autonomy through Badiou and Popper's notions of situation and problem situation.

Badiou presents contradictory ideas as to what constitutes a musical situation, offering examples centered around Wagner, Schoenberg and Messiaen. After comparing these variously formalist and interdisciplinary examples, I argue that Badiou's references to Messiaen, though they are only made in passing, come closest to agreeing with his own notion of musical autonomy. The chapter then searches Badiou's works for openings toward a theory of context. The chapter shows how Badiou's four schemas of art and philosophy from the *Handbook of Inaesthetics* imply relationships of totalisation and determination between art and philosophy that can be usefully applied to *Antagonisme*. For a broader contextual approach, the chapter then compares Badiou's materialist dialectic with Popper's notion of the three worlds to show how the latter builds his contextual notion of the problem situation upon the basis of a properly musical situation.

¹ Jean-Marie Brohm criticised Badiou's early Maoist writings as those of a "Maoist pit-bull." Brohm in Bruno Bosteels, *Badiou and Politics* (London: Duke University Press, 2011), 383n. As will be discussed further in chapter six, Badiou's colleagues were wary of Popper's philosophy in part because of his early anti-Marxist books *The Open Society and its Enemies* (London: Routledge, 1945) and *The Poverty of Historicism* (New York: Harper and Row, 1964).

² Knox Peden and Jean-Claude Milner, "'The Force of Minimalism': An Interview with Jean-Claude Milner," in *Concept and Form*, vol. 2, 237.

³ Badiou, *Logics of Worlds*, 4; Popper, *Objective Knowledge*, 106.

An Opening Gambit

Demonstrating musical autonomy is the principal concern of Badiou's philosophical gambit in *Antagonisme*. In his first letter to Darasse, Badiou suggests that the music should contradict the narrator's image of music by submitting to it and then "exceeding" it. The narrator of *Antagonisme* will "tell" the music

that its formal rigidity must be revealed by a glimmering, teeming exterior, as one glimpses, under ivy, the neatness of the stones that support it. More abstractly; that the music reveals an order in organising its disappearance, in making it "drown." To which (in the ensemble) the musical discourse will "oppose" its pretention to show itself directly as order, or to dissolve itself in seduction, without needing to decorate or deny its Form. Basically, the "poet" claims that he alone can speak clearly [*créer une évidence*]. He thinks that the music must first "incarnate," and in a sense receive from outside, its signification. The music will give in to this conception, but by exceeding it each time.⁴

The poet will thus tell the music that it is a dialectical product of form and appearance, a fact that the poet believes only he can attest to. The music will then give the lie to this dialectical image by attempting to show itself purely as form or sensation. The music should then, enigmatically, "exceed" the text's conception. This final direction is central to understanding *Antagonisme*, as it provides an open-ended invitation for Darasse to respond to the poet's dogma.⁵ Badiou's opening philosophical gambit in the collaboration assumes the autonomy of musical thought.

What sort of musical autonomy is Badiou suggesting? It is tempting to interpret the poet's ideology as a romantic metaphysics of absolute music. The poet's dialectical image of music recalls Eduard Hanslick's high-formalist version of the idea of absolute music found in *On the Musically Beautiful*. The criticism of the idea of absolute music has lost much of its rhetorical power in the past decade and a half, with authors such as Daniel Chua and Sanna Pederson recognizing the extremely broad definition of the term in contemporary scholarship and its relatively restricted

⁴ Alain Badiou to Xavier Darasse, 1964, Msc31.7.

⁵ Badiou thus proposes an extreme form of what Lawrence Kramer calls (in a knowingly inappropriate use of the term) a "deconstructive text-music relationship." I am unaware of any other work that presents such a deconstructive relationship developed to this extent. Lawrence Kramer, "On Deconstructive Text-Music Relationships," in *Music, Culture and Society*, ed. Derek B. Scott (Oxford: Oxford University Press, 2000).

use in the nineteenth century.⁶ Pederson shows how Hanslick only used the term in a descriptive way to distinguish between instrumental and vocal music.⁷ The term's coinage as a critical term is due to Richard Wagner.⁸ Pederson argues that Dahlhaus and the twentieth-century commentators August Halm and Ernst Kurth are responsible for the association of Hanslick with an idea of absolute music as a window onto an ineffable, metaphysical absolute.⁹ Dahlhaus is in fact highly doubtful that Hanslick associates the musical absolute with Hegel's metaphysical absolute, without denying it entirely. Hanslick's dialectic is a material one of musical form and musical content, or themes and tones. Though borrowing the Hegelian terms of spirit and appearance, both terms of Hanslick's dialectic are musical. Form is not spirit, but adopts the function of Hegelian spirit within a specifically musical dialectic.¹⁰ Hanslick's idea of absolute music is autonomous at the level of its immanent structure. Hanslick's understanding of musical dialectic is also autonomous in relation to its context, allowing no space for external textual or programmatic influences.

Hanslick takes the side of absolute music against programmatic music in a long line of debates around musical hermeneutics stretching from the seventeenth-century distinction between *prima prattica* and *seconda prattica* or the "Querelle des anciens et des modernes," the debate between Jean-Philippe Rameau and Jean-Jacques Rousseau concerning harmony and melody, E. T. A. Hoffmann's music criticism and Wagner's writings on music drama.¹¹ So too would Badiou, at first glance.

Like Dahlhaus, Badiou believes that notions of absolute music respond to or attach themselves to some sort of musical autonomy. As Dahlhaus writes, "[t]he impulse [for the idea of absolute music] needed an object to which it could attach itself."¹² Likewise, Badiou's opening gambit assumes that music is capable of exceeding the dialectical image of the poet through more than just programmatic negation. The poet's conception of music in *Antagonisme* is there to be both ridiculed

⁶ Sanna Pederson, "Defining the Term 'Absolute Music' Historically," *Music and Letters* 90, no. 2 (2009); Daniel Chua, *Absolute Music and the Construction of Meaning* (Cambridge: Cambridge University Press, 2004).

⁷ Pederson, "Defining the Term 'Absolute Music' Historically," 250–5.

⁸ ———, "Defining the Term 'Absolute Music' Historically," 241.

⁹ ———, "Defining the Term 'Absolute Music' Historically," 252.

¹⁰ Dahlhaus, *The Idea of Absolute Music*, 111.

¹¹ An extended discussion of the history of musical hermeneutics is outside the scope of this study. For an introduction to the idea of absolute music in hermeneutical discussions, I refer the reader to Carl Dahlhaus' summary of the field. ———, *The Idea of Absolute Music*, 42–57.

¹² ———, *The Idea of Absolute Music*, 103.

and refuted. Though the piece is a demonstration of musical autonomy, it is not any of those expressed by the poet. The ideologies of autonomy in the text must be contrasted with that theorised in *Antagonisme*'s theoretical contemporary, "Autonomy of the Aesthetic Process." To rely wholly upon Badiou's philosophical exegesis in outlining the musical autonomy of *Antagonisme* would, however, fall into the very same trap as Badiou's poet. Darasse's music and its own intellectual history must also be considered part of this discussion.

Qualifying Autonomy

If the autonomy at stake in *Antagonisme* is not absolute, then it is qualified in some way. Norris coined the term "qualified musical Platonism" in his book *Music, Platonism and the Listener's Share* to describe the view of musical works as having properties that may exceed our current conceptual limitations while largely conforming to the limits of human perception. Norris proposes three qualifications for his musical Platonism. First of all, his musical Platonism pertains to some but not all musical instances, even if those instances to which such autonomy does not apply have merits of their own. Secondly, the phenomenological dimension of music should temper our commitment as to which works share this mode of being. Lastly, he wants to avoid a "high-formalist" conception of musical Platonism that disregards perception.¹³

The notion of "autonomy" in this thesis is quite different from Christopher Norris' "Platonism." By "Platonism" Norris means that

there exist sundry objects, properties, and states of affairs—along with the truth-value of statements, theories and hypotheses concerning them—which might always potentially elude our present-best or even our utmost attainable capacities of perceptual or conceptual grasp.¹⁴

Despite describing an ontological worldview, Norris reflects the focus of other writers in Anglophone philosophy of music by describing it in phenomenological and

¹³ Norris, *Platonism, Music and the Listener's Share*, 8.

¹⁴ ———, *Platonism, Music and the Listener's Share*, 15.

epistemological terms.¹⁵ For much of this thesis, musical autonomy is discussed not in terms of how it is accessed, but in terms of what it is and how it is created.¹⁶

In the interest of avoiding any confusion of aims, it is worth keeping in mind Jean Molino and Jean-Jacques Nattiez's tripartition of the musical fact into poietic, neutral and aesthetic poles.¹⁷ A score, recording or performance may be seen to simultaneously support three different semiological interpretations stemming from the creator, a naïve (and controversial) semiological analysis and the receiver. Norris is interested in whether the neutral level of music may be said to exist while exceeding anyone's current-best aesthetic grasp. In *Antagonisme*, Badiou takes it as a given that the neutral level of music may exceed the poet's aesthetic interpretation. Badiou is more interested in asking how the neutral level may exceed the composer's own, poietic interpretation. How does a composer bring about such a transformation in musical technique that it inaugurates a new body of works recognised according to fundamentally new criteria? How does this body of work develop so that it becomes unrecognisable to its creator? Badiou's concern with novelty in musical production, appearing in *Antagonisme*, follows him throughout his philosophical career.

Badiou qualifies the Platonic existence of his musical "truths" by giving them a materialist basis. The maxim of his "materialist dialectic" (a purposeful reversal of "dialectical materialism") is: "There are only bodies and languages, except that there are truths."¹⁸ Amorous, artistic, political and scientific truths insist in the material world without inhabiting a distant realm of their own. This is precisely what Popper means when he speaks of the existence of "objective contents of thought" in his "three worlds."

Throughout his later work, Popper elaborates a Cartesian dualism consisting of

[f]irst, the world of physical objects or of physical states; secondly, the world of states of consciousness, or of mental states, or perhaps of behavioural dispositions to act; and thirdly, the world of *objective contents*

¹⁵ See in particular Peter Kivy, *Music Alone: Philosophical Reflections on the Purely Musical Experience* (Ithaca: Cornell University Press, 1990); Roger Scruton, *Understanding Music* (New York: Continuum, 2009).

¹⁶ The final chapters of the thesis will see the question of phenomenological access to music arise once more as a burning issue. In particular, the subsection "Hearing Order Again," in chapter seven discusses how Darasse and Messiaen ensured that their interventions could be heard.

¹⁷ See Jean Molino, "Fait musical et sémiologie de la musique," *Musique en jeu* 17 (1975). Nattiez has worked extensively with this tripartition. See in particular Jean-Jacques Nattiez, *Music and Discourse: Toward a Semiology of Music*, trans. Carolyn Abbate (Princeton: Princeton University Press, 1990).

¹⁸ ———, *Logics of Worlds*, 4.

of thought, especially of scientific and poetic thoughts and of works of art.¹⁹

Badiou should be thrilled by Popper's notion of the three worlds. Consider the praise that Badiou heaps upon Descartes in the preface to *Logics of Worlds* for his own theory of the autonomy of the contents of thought:

Nevertheless, in paragraph 48 of the *Principles of Philosophy*, we see that substance dualism is subordinated to a more fundamental distinction. This distinction is the one between things (what there is, that is to say substance, either thinking or extended) and truths:

I distinguish between everything that falls under our cognition into two genera: the first contains all the things endowed with some existence, and the other all the truths that are nothing outside our thought.

What a remarkable text! It recognizes the wholly exceptional, ontological and logical status of truths. Truths are without existence. Is that to say that they do not exist at all? Far from it. Truths have no *substantial* existence. [...]

Like every genuine philosopher, Descartes registers, at the point where ontology and logic rub up against each other, the necessity of what we have chosen to call 'materialist dialectic'.²⁰

Given his criticisms of psychoanalysis and Marxism, one can imagine Popper squirming at the insinuation that he developed a materialist, dialectical theory of truth. The disagreements between Popper and the continental tradition appear early in Popper's career, with his rejection of Marxism and psychoanalysis as unfalsifiable doctrines.²¹

Music need not be held to the same epistemological standards as science and Popper is explicit about the musical origins of his idea of the three worlds. He is also circumspect about the accuracy of its original musico-historical formulation.

It was my interest in music that led me [in 1920] to what I then felt was a minor intellectual discovery [...] . This discovery later greatly influenced my ways of thinking in philosophy, and it ultimately led even to my distinction between world 2 and world 3, which plays such a role in the philosophy of my old age. At first it took the form of an interpretation of the difference between Bach's and Beethoven's music, or their ways of approaching music. I still think that there is something in my idea, even though this particular interpretation, I later thought, greatly exaggerated the

¹⁹ Popper, *Objective Knowledge*, 106.

²⁰ Badiou, *Logics of Worlds*, 5–6.

²¹ Popper, *The Poverty of Historicism*.

difference between Bach and Beethoven. Yet the origin of this intellectual discovery is for me so closely connected with these two great composers that I will relate it in the form in which it occurred to me at the time. I do not wish to suggest, however, that my remarks do justice to them or to other composers, or that they add something new to the many things, good or bad, which have been written about music: my remarks are essentially autobiographical.²²

Popper believed that Bach approached composition objectively and that Beethoven approached composition subjectively. Aware of the naivety of this thesis, he only advanced it in his autobiography among the above hail of disclaimers. His argument was not, however, that Beethoven's music is actually more expressive than Bach's, but that Bach and Beethoven used musical technique differently.²³ Subjective and the objective composers may use the same body of musical techniques, but will place differing levels of importance upon the work's emotional resonance or external constraints, such as the constraints of a commission. Popper gives Bach's *Inventions and Sinfonias*, BWV 772–801, as examples of objective composition because of their pedagogical motivations. Even the intensely emotional *St. Matthew Passion* is objective, Popper argues, because "the music which he invented must have made its impact on him (otherwise he would, no doubt, have scrapped the piece as unsuccessful), and not because he was first in an emotional mood which he then expresses in music."²⁴ It is essentially a historical or sociological argument whose philosophical content is actually, as Popper points out above, his distinction between intention (world two) and technique (world three).

Norris dismisses Popper's distinction between objective and subjective music, interpreting Popper as making value judgments about Bach and Beethoven's music based on ideals of "objectivity and rigour."²⁵ To the contrary, Popper criticises the essentialist binary of emotion and technical rigour that he finds in Benedetto Croce and R. G. Collingwood. Popper believes that there is no direct transmutation of emotions into music because a composition is always based on the musical resources of its time. To Popper, both the technical world three and the subjective world two are involved in any musical activity. World two forms a necessary bridge between the

²² ———, *Unended Quest*, 65.

²³ ———, *Unended Quest*, 61.

²⁴ ———, *Unended Quest*, 63.

²⁵ Norris, *Platonism, Music and the Listener's Share*, 15.

material world one and world three.²⁶ As Popper writes: “I propose instead that we regard the human mind first of all as *an organ that produces objects of the human world 3* (in the more general sense) and interacts with them.”²⁷

Popper’s world three objects are thus qualified by their creation in thought. They are considered autonomous, however, because they have “unintended and unforeseen consequences,”²⁸ a characteristic that Popper defines as the “(partial) autonomy of world 3.”²⁹

By this I mean that although we may invent a theory, there may be (and in a good theory, there always will be) *unintended and unforeseen consequences*. For example, men may have invented natural numbers or, say, the method of proceeding without end in the series of natural numbers. But the existence of prime numbers (and the validity of Euclid’s theorem that there is no greatest prime) is something we *discover*. It is there, and we cannot change it. It is an unintended and unforeseen consequence of that invention of ours. And it is a necessary consequence: we cannot get around it. Things like prime numbers, or square numbers, and many others, are thus “produced” by world 3 itself, without further help from us. To this extent it may be described as “autonomous.”³⁰

If musical inventions are considered to have unexpected consequences, then the hyperbole of the romantic metaphysicists takes on a new shade. Instead of a century of music fetishists, one can imagine a century of listeners quite overcome by the tonal possibilities unfolding before their ears.

Badiou’s Musical Situations

Badiou also believes that musical invention breaks free from the mind that creates it and circulates in the world. For Badiou, the autonomous musical object is the “subject” of music.³¹ The musical subject inheres not in the listener or the composer,

²⁶ Popper, *Unended Quest*, 185.

²⁷ ———, *Unended Quest*, 189.

²⁸ ———, *Unended Quest*, 185.

²⁹ ———, *Unended Quest*, 185.

³⁰ ———, *Unended Quest*, 185.

³¹ Badiou’s “subject” of truth is not an autonomous, reflexive subject that may be found throughout the history of phenomenological and existentialist philosophy, but a body of decisions constituting part of a truth procedure in politics, art, science or love. Badiou situates his notion of subjecthood within a “second epoch of the doctrine of the Subject” where the subject is “void, cleaved, a-substantial, and ir-reflexive.” The subject can only be said to exist “in the context of particular processes whose conditions are rigorous.” Alain Badiou, *Being and Event*, trans. Oliver Feltham (New York: Continuum, 2005), 3. For further technical details, I direct the reader towards the extensive secondary literature on Badiou’s *Being and Event* and *Logics of Worlds*, in particular Peter Hallward, *Badiou: A subject to truth*; Sean Bowden et al., eds., *Badiou and Philosophy* (Edinburgh: Edinburgh University Press, 2012); and Christopher Norris, *Badiou’s Being and Event: A Reader’s Guide* (London: Continuum, 2009).

but in series of works. The subject consists of not only the neutral level of these works, but also the techniques and stylistic characteristics that composers and listeners use to construct and reconstruct them. Like Popper, Badiou sees the human mind as essential in bridging the inert score or sound-wave and the structures of the musical subject.

Subjects in turn populate a situation or world of works, which Badiou distinguishes from the social reality of a musical scene. Throughout his writings, Badiou shows particular interest three musical figures: Schoenberg, Messiaen and Wagner. His discussion of what constitutes their musical situations is widely divergent, with Schoenberg representing the most formal and Wagner the most hybrid model. Badiou's discussion of Schoenberg should be taken as a vestige of the early musical formalism of "Autonomy." Badiou's discussion of Messiaen, perhaps because Badiou relies more on his own sharp ears than technical or contextual details to make aesthetic judgments, comes closest to describing a musical subject within his own terms. His discussion of Wagner runs against the hermeticism of his own theory of worlds, betraying a lack of discipline that some will applaud. It will be taken here as a symptom of Badiou's need for a theory of how different worlds interact.

Schoenberg

In his discussion of the Second Viennese School in *Logics of Worlds*,³² Badiou takes "German music at the end of the nineteenth century and the beginning of the twentieth" as the musical situation in question. He examines this situation as an example of his theory of the emergence of a subject. The emergence of a subject involves destructive and subtractive modes of negation. The first destroys the previous order by affirming the possibility of the new, while the subtractive movement affirms the axioms of the new order.³³ Among late-romantic "overly exaggerated adagios" and "virtuoso burlesques" appears the "Schoenberg-event": "that which breaks the history of music in two by affirming the possibility of a sonic world no longer ruled by the tonal system."³⁴ Badiou suggests that the event appears and disappears over twenty years, between the String Quartet no. 2, Op. 10 and the *Variations for Orchestra*, Op. 31.³⁵

³² Alain Badiou, "Scholium."

³³ Badiou clarifies the destructive and subtractive procedures in an article that has only recently been published in a book also containing "Autonomy of the Aesthetic Process." ———, "Destruction, Negation, Subtraction: On Pier Paolo Pasolini," in *The Age of the Poets and Other Writings on Twentieth-Century Poetry and Prose*, ed. Bruno Bosteels (London: Verso, 2014).

³⁴ ———, "Scholium," 80.

³⁵ ———, "Scholium," 80.

Though the event vanishes from the situation, the trace of the event remains as “what allows itself to be extracted from Schoenberg’s pieces as an abstract formula of organization for the twelve constitutive tones.”³⁶

Armed with the trace of the event, the body of the subject is then constituted by the affirmative, subtractive sequence of works that “attempt to construct a universe conforming to the imperative harboured by the trace.”³⁷ Badiou gives two examples of components of the subject of the Schoenberg-event: Berg and Webern. Through their lyricism and theatricality, Berg’s works are “openings” of the new subject onto the previous, post-Wagnerian musical order. Webern’s music constitutes “points” that radically break with the previous mode of thematic organisation.³⁸ If Badiou’s description of the subject encompasses a range of stylistic variations, the evental trace is purely formal. As he writes in his article “Destruction, Negation, Subtraction: On Pier Paolo Pasolini,” Schoenberg’s new axioms “structure the admissible succession of notes in a musical work, outside the tonal system, [which] are in no way deducible from the destruction of this system.”³⁹ While Badiou provides a discussion of the stylistic variation in the subject of the Schoenberg-event, his discussion risks sliding into a technical prescription about pitch materials.

Messiaen

Badiou’s discussion of Messiaen comes closer to reflecting the stylistic revolution of a new musical subject. This is perhaps a side-effect of the lack of technical detail in his discussion. As a listener, Badiou associates Messiaen’s music with an event, or at least an atmosphere of the evental. He is at a loss to describe exactly how Messiaen’s music relates to the principal avant-garde movements of the twentieth century. Without the language to describe Messiaen’s music, Badiou reverts to “sheer personal taste”:

I hope I can be allowed a concession to sheer personal taste. Of all the musicians active in the second half of the twentieth century, after Webern’s death, Olivier Messiaen is my favourite. I believe it is because he obstinately maintains—by means of composite but original devices (less neo-classical in spirit than those of Dutilleux, so to speak)—an extraordinary affirmative virtue. Pierre Boulez, undoubtedly both more

³⁶ ———, “Scholium,” 80.

³⁷ ———, “Scholium,” 80.

³⁸ ———, “Scholium,” 84–5.

³⁹ ———, “Destruction, Negation, Subtraction,” 84.

subtle and more rigorous, only conquers a restricted space and leaves music far too fettered by a kind of critical asceticism. Christianity certainly helps Messiaen to celebrate, in the music itself, the correspondence between music and world, a correspondence of which the ‘brute’ usage of birdsong is a symbol. But this is still only a subjective means. As the affirmationist that I am, I salute—in particular Messiaen’s particular combination of overlapping rhythms, disparate harmonic modes and violent tonalities—a kind of conquering voluptuousness whose optimism I find enchanting.⁴⁰

Badiou recognises and dismisses Messiaen’s religious symbolism as merely “subjective means” to affirm his panoply of new musical resources. In doing so, he avoids the red herring that has spared Messiaen the worst critiques aimed at the twentieth-century avant-garde. As Deliège writes:

This exemplary musician remained untouched by any line of challenge. His professed religious orthodoxy probably preserved him from it, but this did not lead him to conservative options in questions touching on musical poetics: the well-known anachronism of composers of sacred music today.⁴¹

It is in one sense correct to distance Messiaen from the tide of Darmstadt serialism promulgated by Boulez. Badiou’s estimation of Messiaen as not belonging to the serial subject rings true for many of his works:

Now, even though he had shown, in his *Four Studies in Rhythm* (1950), that he was capable of practicing a serialism extended to all musical parameters, due to his attachment to themes and his use of classical harmony Messiaen could not be fully considered as one of the names of the subject “serial music.”⁴²

But Badiou is also incorrect to shield the works of what Boulez calls Messiaen’s “experimental period,”⁴³ stretching from the “Mode de valeurs et d’intensités” of 1949 to the *Livre d’orgue* of 1951–2, from the judgment of non-serialism. As chapters four and seven will show, Messiaen’s experimental works disrupt tonality and thematism through order-based permutations. While they follow from the negation of tonality of the Schoenberg-event, they strike out on a different subtractive path.

Wagner

⁴⁰ ———, *Logics of Worlds*, 528.

⁴¹ Deliège, *Invention musicale et idéologies*, 290.

⁴² Badiou, *Logics of Worlds*, 82.

⁴³ Pierre Boulez, *Orientations*, trans. Martin Cooper (London: Faber and Faber, 1986), 412.

Badiou's discussion of Wagner is almost purely contextual. Badiou frames Wagner's music dramas within a cross-disciplinary or multiple subject. Ultimately, Badiou is discussing the inclusion of various aspects of Wagner's music dramas within a political subject. Insofar as the drama is concerned, Badiou considers *Parsifal* an affirmation of the possibility of a post-Christian ceremony or collectivity. Badiou identifies the subject of *Parsifal* as "the question as to whether a modern ceremony is possible."⁴⁴ Needless to say, we are far from the musical subject of the Schoenberg-event with its contrasting Webernian points and Bergian openings. Badiou's use of the term "subject" in relation to *Parsifal* appears fairly loose, meaning "the particular modality of the Idea's constitution."⁴⁵

It is evident, despite Badiou's efforts to the contrary, that the "Idea" in question is fundamentally political. Such a modern, secular ceremony is one where the community asserts itself, rather than one in which it merely stands witnesses.⁴⁶ The spectacle of the community at Nazi rallies immediately comes to mind. Wagner has come to represent what Lacoue-Labarthe calls "the *aestheticization*—the *figuration*—of the political." Lacoue-Labarthe is writing about the birth of a distinctly hybrid form of art that is neither "a politics of art," nor an "art of politics."⁴⁷ To Badiou, such a fusion entails the closure of both art and politics, a mutual suturing that leaves no room for the genuinely new in either field. He is quick to counter:

As you are well aware, politics in the twentieth century was obsessed with the question of ceremony. This is one of the reasons why Wagner was accused of being a proto-Nazi and why someone as intellectually sophisticated as Lacoue-Labarthe could still fundamentally argue that the question of the new ceremony consists in imposing on the masses a mythical configuration reiterating their closure. [...] Thus, the great mass rallies in Nuremberg or Moscow were ceremonies, ceremonies in which the people were in fact summoned to self-representation, but not as a reflection of their infinite potential, only as a massive new closure that was mythical in nature.⁴⁸

Badiou wants to reconsider the ceremony in *Parsifal* and in Mallarmé's *Livre* as modern ceremonies that are "analogous" to religion while essentially different from

⁴⁴ ———, *Five Lessons on Wagner*, trans. Susan Spitzer (London: Verso, 2011), 147.

⁴⁵ ———, *Five Lessons on Wagner*, 135.

⁴⁶ ———, *Five Lessons on Wagner*, 147.

⁴⁷ Philippe Lacoue-Labarthe, *Musica Ficta: Figures of Wagner*, trans. Felicia McCarren (Stanford: Stanford University Press, 1994), xv.

⁴⁸ Badiou, *Five Lessons on Wagner*, 156.

it.⁴⁹ Badiou associates the distance between religion as such and Mallarmé's ceremony as that between the redeemer and redemption in the phrase "Redemption to the redeemer." Redemption must not be a simple return of Christianity, but a new affirmation of the infinite in the foreclosed, crumbling walls of Montsalvat.⁵⁰ The collectivity described is clearly a ceremonial manifestation of Badiou's understanding of a political, specifically communist, event as the "vehicle for a virtual summoning of all."⁵¹

Badiou makes scattered references to the music of *Parsifal*, leaning on an analysis by Nicolas.⁵² In concluding, Badiou writes that he has tried to show how Wagner's music "consists in showing, *as it is occurring*, how a new subjective possibility can emerge" and specifically "that it involves a musical process rather than a narrative or a story."⁵³ It is clear, though, that Badiou does not seek first and foremost "the dramatic figure that matches the expansion of time in the music, that is coextensive with its tonal colour and is also connected with the layering of sound in the music," but rather points to the musical examples on the basis of his understanding of the drama.

If Wagner's work constitutes a subject, then what is its event? This is a recurring question in the collection of articles on *Five Lessons on Wagner* recently published in *The Opera Quarterly*.⁵⁴ Badiou never suggests that Wagner's music dramas constitute a scientific, artistic, political or amorous event, because there is no one domain of thought where it can be identified. One is inevitably thrust up against the problem of the belonging of the art-work to multiple worlds when discussing Wagner, as the seemingly inevitable panels on "Wagner and politics" show whenever a *Ring Cycle* rolls into town (the recent *Ring Cycle* in Melbourne included). After some half-hearted sparring, the discussion often rolls to the conclusion "you can still listen to Wagner, but you should be informed." In the afterword to *Five Lessons on Wagner*, Slavoj Žižek recounts a question at a conference on Wagner at Columbia University

⁴⁹ ———, *Five Lessons on Wagner*, 147–52.

⁵⁰ ———, *Five Lessons on Wagner*, 141.

⁵¹ ———, *Metapolitics*, trans. Jason Barker (London: Verso, 2005), 141.

⁵² François Nicolas, "Écoutez Parsifal!," *Journée Parsifal*, École Normale Supérieure, Paris, 2006, Entretiens, accessed 17 May, 2010, <http://www.entretiens.asso.fr/Wagner/Parsifal/12.htm>.

⁵³ Badiou, *Five Lessons on Wagner*, 130.

⁵⁴ Brian Kane, "Badiou's Wagner: Variations on the Generic," *The Opera Quarterly* 29, no. 3–4 (2013): 353; Kenneth Reinhard, "Badiou and the Subject of Parsifal," *The Opera Quarterly*, 362; Naomi Waltham-Smith, "Badiou Contra Badiou," *Current Musicology* 94 (2012): 153.

in 1995 that demonstrates contemporary academic discourse's inability to uphold simultaneous musical and political priorities:

[A]fter the majority of participants outdid each other in the art of unmasking the anti-Semitic and proto-fascist dimension of his art, a member of the public asked a wonderfully naïve question:

So if all you are saying is true, if anti-Semitism is not just Wagner's personal idiosyncrasy, but something which concerns the very core of his art, why, then, should we still listen to Wagner today, after the experience of the Holocaust? When we enjoy Wagner's music, does this stigmatize us with complicity in or, at the very least, acquiescence, to the Holocaust?

The embarrassed participants—with the honourable exception of one honest, fanatical anti-Wagnerite who really meant it when suggesting that we stop performing Wagner—replied with confused versions of “No, of course, we didn't mean that, Wagner wrote wonderful music ...”—a totally unconvincing compromise, even worse than the standard aestheticist answer: “Wagner as a private person had his defects, but he wrote music of incomparable beauty, and in his art there is no trace of anti-Semitism.”⁵⁵

Žižek goes on to affirm that Badiou's “event called Wagner” is an “artistic-political unity” that may be read in strictly anti-fascist terms.⁵⁶ To the contrary, we need a frame in which to consider the paraconsistency of worlds, that is, the way a work may simultaneously contribute to multiple worlds. Otherwise, one is at risk of conflating the political and the artistic with consequences that were not unknown to Darasse himself.

An event in one discipline is not an event in another. Consider the effects of May 1968 on politics and music. Badiou's political thinking was radically transformed by the events of May 1968. In 1975 he declared “without reticence” that May 1968 was “a veritable road to Damascus.”⁵⁷ The experience taught him, against his previous theoreticist bias, that “it is the masses that make history, including that of knowledge.”⁵⁸ By contrast, May 1968 had a cooling effect on the experiments of European modernism. Darasse's classmate François-Bernard Mâche remembers how the musical reflection of the late fifties and early sixties was “brutally” interrupted by the events of May 1968. Lively debates around atonality and tonality, electroacoustic

⁵⁵ Žižek in Badiou, *Five Lessons on Wagner*, 161–62.

⁵⁶ ———, *Five Lessons on Wagner*, 165.

⁵⁷ Alain Badiou, *Théorie de la contradiction* (Paris: François Maspero, 1975), 9.

⁵⁸ ———, *Théorie de la contradiction*, 8.

music and *musique concrète*, aleatoric music and discursive music were relegated to an academic scrapheap while “politics for some, theatre for many, reconciliation with the public or with the past for most, became or re-became the dominant concerns.”⁵⁹ Darasse appeared untouched by the events, except for in his role as Director of the Espace Croix-Baragnon Cultural Centre.⁶⁰ He had the unenviable job of defending the institution against the Toulousain “liberators.” Pressnitzer remembers that they were “two poor sods” trying to explain that “[t]o throw works of art out the window was not a revolutionary act, but a stupid one.”⁶¹

It is particularly problematic for Harper-Scott to argue that “the Event of which twentieth-century modernism is a ‘maximalisation’ [...] remains, as it was for Romanticism, the French Revolution.”⁶² Harper-Scott explicitly frames Schoenberg’s emancipation of dissonance as a resurrection of the communist truth procedure. Indeed, he goes so far as to say that, unlike politics, “music has always remained communist even in the intervals between communist sequences.”⁶³ It is unclear how the emancipation of dissonance relates to the French Revolution for Harper-Scott. One assumes the principle of equality articulates people on the one hand and intervals on the other. How would Harper-Scott describe a situation where a political principle of equality clashed with a musical one, such as May 1968 or a situation where composers were restricted by decree to write tonal, folksy anthems? He would have to agree that we were talking about different principles of equality affirmed in different domains. While the French Revolution may have functioned as an element of certain musical problem situations and even have formed part of a faithful musical subject, it does not function within music’s more formal and limited situation. Instead of a greater synthesis of music and politics, we need a frame in which to consider the paraconsistency of worlds. Despite the apparent hermeticism of Badiou’s musical situations, windows onto multiple worlds may be found throughout his work.

Windows onto Multiplicity

⁵⁹ François-Bernard Mâche, *Un demi-siècle de création musicale (et toujours contemporaine)* (Paris: L’Harmattan, 2000), 7–8.

⁶⁰ Darasse held this post between 1967 and 1973. Pressnitzer, “Mes années Darasse.”

⁶¹ Pressnitzer, “Mes années Darasse,”

⁶² Harper-Scott, *The Quilting Points*, 181.

⁶³ ———, *The Quilting Points*, 183.

Peter Hallward criticises the hermeticism of Badiou's philosophy in *Badiou: A Subject to Truth*:

Rather than seek to transform relations, to convert oppressive relations into liberating relations, Badiou seeks subtraction from the relational *tout court*. So long as it works within the element of this subtraction, Badiou's philosophy forever risks its restriction to the empty realm of prescription pure and simple.⁶⁴

Because Badiou hedges his philosophy away from contextual concerns so carefully, attempts to bend his philosophy to applied, cultural-critical ends results in unhelpful inconsistencies. Within musicology, Harper-Scott performs such a reading in his discussion of Badiou's subjective figures. Badiou's "faithful," "reactive" and "obscure" subjects each function in different ways in regards to an emerging truth.⁶⁵ The "reactive" subject assimilates new scientific theorems with those of the old scientific world under the guise of "pedagogism."⁶⁶ The reactive scientific subject thus produces an "atonic" scientific world where scientific postulates are judged only according to their "lucrative 'applications.'"⁶⁷ The "obscure" subject actively seeks to deny or destroy the new subject. The obscure subject is represented to Badiou by the prohibition of science by ethics committees and other "priests of the day."⁶⁸

Harper-Scott's error involves confusing the scientific world of the reactive subject with the social world. Harper-Scott discusses the reactive subject's world as one where "the results of science are useful only insofar as they may be exploited economically."⁶⁹ The monetary value of science is quite beside the point of the reactive subject's function. This is so even if monetary concerns may lead a human subject to contribute to a reactive scientific subject. To recall, a reactive subject is one that assimilates new scientific theorems with old ones rather than pursuing their novelty. When, "[u]nder the occultation of Capital, science does not operate in a world of (in)expressibility borders, but in a world of product: this new gadget or drug, etc,"⁷⁰ science as such disappears or passes over into the realm of technology. Art,

⁶⁴ Hallward, *Badiou: A Subject to Truth*, xxxiii.

⁶⁵ Badiou, *Logics of Worlds*, 78.

⁶⁶ ———, *Logics of Worlds*, 75.

⁶⁷ ———, *Logics of Worlds*, 75.

⁶⁸ ———, *Logics of Worlds*, 76.

⁶⁹ Harper-Scott, *The Quilting Points*, 204.

⁷⁰ ———, *The Quilting Points*, 204.

when discussed in terms of its reproduction and dissemination, becomes culture. A lecture by Badiou from 2002 places this distinction in no uncertain terms:

The question of technology, of modernity, of techne is in my opinion not a very important question. There are always technical questions, but there is no capital newness in the question of technology. There is no direct ethical question of the relation between ethics and technology. Ethical questions, for me, are questions in the field of truth. [...] You have to say, first of all, what is exactly the scientific question in the situation, the question engaged in a technological problem, what is the truth-process in some particular technological question, what is the political framework of the question, because there is no technological problem per se, only techno-political problems. You have to determine the political questions, the scientific questions, and finally which field of truth, and after that sort of investigation you can examine the consequences of technical transformation in our world.⁷¹

Harper-Scott is closer to the core problem of Badiou's theoretical hermeticism in attacking his refusal to consider the moral and ethical questions accompanying research.⁷² It is not the exclusion of ethical considerations, or technological problems, or the empirically given that is problematic in Badiou's work, but Badiou's unwillingness to flesh out a theory of relationships between his Platonic worlds. Even though Badiou does not give a theory of interacting worlds, he offers tantalising glimpses into such a theory, beginning with the relationship of philosophy and art.

In the *Handbook of Inaesthetics*, Badiou theorises four schemas of the relationship of philosophy and art.⁷³ He contrasts the "inaesthetic" schema of his own philosophy with what he calls the "classical," "didactic" and "romantic" schemas. Each schema is characterised by whether or not it considers the truth of art to be immanent or singular. The immanent truth of art would be an effect of purely artistic procedures. No other domain could produce it. A singular artistic truth could not circulate among other forms of truth-producing thought such as politics, science or love. No other domain could share it. One can tabulate the singularity and immanence of musical truths within each of Badiou's schemas (fig. 1).⁷⁴

⁷¹ Alain Badiou, "On the Truth-Process: An Open Lecture by Alain Badiou," The European Graduate School, accessed 13 June, 2014, <http://www.egs.edu/faculty/alain-badiou/articles/on-the-truth-process/>.

⁷² Harper-Scott, *The Quilting Points*, 205.

⁷³ Badiou, *Handbook of Inaesthetics*, 2.

⁷⁴ The reader may notice that the properties of immanence and singularity of Badiou's four schemas form a square of opposition as discussed in chapter seven. Though it may be a more elegant way of presenting the information, I have avoided cluttering this chapter with such a technical discussion.

	Didactic	Romantic	Classical	Inaesthetics
Immanent	×	✓	×	✓
Singular	✓	×	×	✓
Determination	Philosophy → Art	Art → Philosophy	Philosophy → Art	Art → Philosophy
Totalising	✓	✓	×	×

Figure 1: Table of Badiou’s schemas of art and philosophy with rows for the direction of determination of discourses and their totalising effect.

Badiou does not elaborate at length upon the real-world examples or consequences of each schema. I propose that relationships of domination and totalisation between philosophy and art are corollaries of Badiou’s theory. In both the romantic and inaesthetic schemas, art is unanswerable to philosophy because its truth is immanent to the work of art. Art has a determinant effect upon philosophical discourse within these discourses. Where art’s truth is not immanent, philosophy may prescribe rules to art. Whether a determining influence is totalising or not is less clear. Why do the didactic and romantic schemas involve totalising determinations, while the classical and inaesthetic schemas do not?

In the didactic schema, art is only considered the “charm of a semblance of truth” that distracts from the “dialectical labor” of discursive truth.⁷⁵ Within this paradigm, exemplified by Plato, “art must be either condemned or treated in a purely instrumental fashion.”⁷⁶ Under this schema, philosophy attempts to completely determine artistic practice, as Plato does in *The Republic* through the prohibition of certain musical materials.⁷⁷ Badiou also wants to avoid the romantic schema wherein art holds a monopoly on truth.⁷⁸ Proponents of the idea of absolute music like Hoffmann and to a lesser extent Hanslick can only worship at the altar of art, which “accomplishes what philosophy can only point toward.”⁷⁹ Badiou associates the didactic and romantic schemas with education, albeit a very dogmatic form of it. In the didactic schema, philosophy tells art what it can and cannot do. In the romantic

⁷⁵ ———, *Handbook of Inaesthetics*, 2.

⁷⁶ ———, *Handbook of Inaesthetics*, 2.

⁷⁷ Paul Shorey, *Plato: The Republic* (Cambridge: Harvard University Press, 1935), 3.10–12, 245–65.

⁷⁸ Badiou, *Handbook of Inaesthetics*, 3.

⁷⁹ ———, *Handbook of Inaesthetics*, 3.

schema, art “teaches of the power of infinity held within the tormented cohesion of a form.”⁸⁰ The will to education defines the totalising drive of the didactic and romantic schemas.

In between the opposing educational powers of the didactic and romantic schemas stands the more insidious classical and inaesthetic schemas. The classical schema denies that art has any relation to truth whatsoever. Art’s purpose is merely therapeutic catharsis, a view that Badiou associates with Aristotle.⁸¹ Under the classical schema, philosophy determines art in an underhanded way. Though musical materials are not outlawed, art’s freedom is permitted under the condition that it renounce all claims to truth and formal ingenuity, that it serve only the regulation of pleasure. Truth may yet fly under the radar of philosophy; there are, after all, enjoyable modernist works. In Badiou’s inaesthetics, philosophy is free to recognise and inspire itself with the immanent and singular truths of art insofar as it does not attempt to dictate the activities of the musician. Badiou’s philosophy has a one-way relationship with art. All the philosopher can do is counsel the pursuit of art, politics, science and love as such, in opposition to their *ersatz* forms of culture, management, technology and sex.⁸²

Antagonisme cuts across Badiou’s schemas, exhibiting elements of both the totalising didactic schema and non-totalising inaesthetics. As expressed in Badiou’s opening gambit, the poet has a didactic relationship to art. The poet attempts to totally dominate music, claiming that “he alone can speak clearly.” The poet censures the piano’s clamorous opening and speaks of music as a seductive danger. Badiou himself esteemed Darasse’s contribution in a manner resembling the inaesthetic schema. In his first letter, Badiou makes it clear that his proposal may be adopted, modified or refused:

The schemas that I will propose to you are only to get the ball rolling. They have, moreover, the fault of eating into your own work (which is the only essential one) in anticipating an overall division and certain transitions. You can therefore play with it and refuse it all: At least the dialogue will tighten things up.⁸³

⁸⁰ ———, *Handbook of Inaesthetics*, 3.

⁸¹ ———, *Handbook of Inaesthetics*, 5.

⁸² ———, *Second Manifesto for Philosophy*, trans. Louise Burchill (Cambridge: Polity Press, 2011), 120. See also the discussion of artistic affirmation in ———, “Third Sketch of a Manifesto of Affirmationist Art,” in *Polemics* (London: Verso, 2006).

⁸³ Alain Badiou to Xavier Darasse, 1964, Msc31.7.

Badiou's insistence that the music exceed the poet's text exhibits his belief in musical autonomy and a desire for music to talk back to philosophy. If Badiou's four schemas help to formalise the relationship between music and text in *Antagonisme*, they do little to help comprehend the variety of different serial, experimental and neoclassical musical priorities converging in the piece. A theory of the co-belonging of a musical work to multiple worlds appears fleetingly in *Logics of Worlds*.

In *Logics of Worlds*, Badiou qualifies his theory of worlds with a provisory outline of the multiplicity of worlds. This is necessary to uphold his fundamental ontological claim that being is multiple, that there is no Universe.⁸⁴ Without the concept of an outside of a world, Badiou's world would collapse into a Universe. He does not theorise the interaction of worlds because that would imply a Universe in which that interaction took place. Badiou theorises the multiplicity of worlds in two ways: Firstly, by considering an index within a world for that which sits outside of it. Badiou argues that there is a logical place for that which does not appear in a world, but that this place is non-existent within that world. As Badiou writes: "[T]o the extent that its being is attested and therefore localized, this takes place somewhere else (in another world), not here."⁸⁵ As such, a world is only oriented towards thinking the same and not the other. The ethical outcome of this, as explained in *Ethics: An Essay on the Understanding of Evil*, is that truths are "indifferent to differences."⁸⁶ Secondly, Badiou theorises the co-belonging of a multiple to more than one world. Not only may a multiple form part of political, scientific or artistic subjects, but a multiple may also belong to more than one subject within a single domain. Works of art find themselves enmeshed in conflicting artistic subjects, such as Berg's opera *Wozzeck*, which at once extends the subjective body of the romantic period's formal resources (through the use of dance forms, sonata forms and theme and variations) while exploring the new twelve-tone musical world opened up by Schoenberg.⁸⁷ The opera also participates in the worlds of theatre and literature, not to mention its political and psychoanalytical resonances.

Badiou combines these two considerations of the multiplicity of worlds in an example drawn from Paul Dukas' *Ariane et Barbe-bleue*, an opera that is "essentially

⁸⁴ Badiou, *Being and Event*, 31.

⁸⁵ ———, *Logics of Worlds*, 123.

⁸⁶ ———, *Ethics*, trans. Peter Hallward (London: Verso, 2001), 27.

⁸⁷ Gérard Gubisch combines these two aspects of the opera in his excellent analysis Gérard Gubisch, *Wozzeck: ou l'opéra révélé* (Paris: L'île bleue, 2011).

about the visibility of deliverance, about the fact that it is not enough for freedom to be (in this case under the name and the acts of Ariadne), but that freedom must also appear, in particular to those who are deprived of it.”⁸⁸ Badiou poses the thought experiment of the introduction of Ava Gardner in the midst of Bluebeard’s wives. Outside of the special case where Ava Gardner plays a role in a production of *Ariane et Barbe-bleue*, she would neither belong to the old world of Bluebeard’s wives, nor Ariadne’s new, emancipated world. Georgette Leblanc, mistress of the librettist Maurice Maeterlinck, on the other hand, is included in the world of *Ariadne and Bluebeard* to the extent that she was the model for Ariadne and possibly even created the role herself after being refused the role of Mélisande in Debussy’s *Pelléas et Mélisande*.⁸⁹ The example gives the impression that multiple worlds, thinking both their internal elements and those outside of them, constitute a matrix of relations, “a logically instituted worldly connection between writing, love, music, theatre and cinema.”⁹⁰ Though Badiou theorises the appearance of multiple worlds, his philosophy is motivated by the appearance of truths in isolation. *Antagonisme* is a case where a literary procedure and a musical aim affect one another, but there is no language in Badiou’s theory to discuss such interworldly causality. Such a language would have to be able to think a musical work as purely musical, as well as purely literary, political and scientific.

Though Badiou does not venture into the world of interdisciplinarity, a composer who has closely followed his writings since the 1960s has. Nicolas calls profitable exchanges between music and extrinsic worlds “*reasonances*.”⁹¹ As a mathematician as well as a composer, Nicolas provided important input into early drafts of Badiou’s books *Being and Event* and *Number and Numbers*. His notion of *reasonances* is thus formulated in full knowledge of the limits of Badiou’s discourse. Nicolas gives himself license to consider the way music convokes forms from its broader context because he writes within a discourse he calls “musical intellectuality,” which he distinguishes from philosophy.⁹² Musical intellectuality is theoretical

⁸⁸ Badiou, *Logics of Worlds*, 115.

⁸⁹ ———, *Logics of Worlds*, 124.

⁹⁰ ———, *Logics of Worlds*, 124.

⁹¹ Music’s *reasonances* are the subject of the fourth volume of Nicolas’ book *Le Monde-Musique*. For the moment, I direct the reader to the article François Nicolas, “‘Raisonances’ mathématiques en musique,” *Gazette des mathématiciens* 111 (2007): 30–38.

⁹² The notion of musical intellectuality will be explored further in chapter nine. The notion does not appear in Nicolas’ first writings on music, which were of a journalistic nature, appearing in *Le Perroquet*, a newspaper edited by Badiou and other members of the UCF-ml. Nicolas’ encyclopaedic

reflection on the composer's work that lacks any imperative of forming a coherent "theory of music" such as Riemann's functional harmony, or a formalisation of music as in the mathematical models of Guerino Mazzola.⁹³ Its goal is also not the development of a theory of composition, but rather a "theorisation" or "theoretical practice" as an end in itself.⁹⁴ It is a form of "self-encouragement" for the composer treading new and uncertain paths.⁹⁵ Nicolas argues that the paradigmatic examples of musical intellectuality are the writings of Rameau.⁹⁶ Appearing before the birth of musicology as a discipline, Rameau's writings are at once interested in advances in other disciplines, in particular mathematics, while addressing themselves to musicians in a spirit of experimentation. In Nicolas' words, they aim at the "dynamisation of knowledges [connaissances]" rather than a "recollection of knowledges [savoirs]."⁹⁷

As an example of a *raisonance*, Nicolas gives the elementary example of a musician inspired by the dodecaphonic row of Berg's *Lyric Suite*.⁹⁸ This row contains, as well as all twelve tones of the chromatic scale, all eleven intervals of the chromatic scale. Though one can quickly calculate the total number of possible twelve-tone rows,⁹⁹ it is more complicated to calculate the set of all all-interval, twelve-tone rows. In

intellectual approach was, however, evident even in these earliest articles, which spread their attentions between jazz, composers, ensembles, music criticism and music history. ———, "33 variations en hommage à Thelonius Monk," *Le Perroquet* 7, 26 February–12 March, 1982; ———, "Brian Ferneyhough, compositeur," *Le Perroquet* 48, 4–25 February, 1985; ———, "D'un courant musical contemporain: L'itinéraire," *Le Perroquet* 54–55 1985; ———, "La formation d'un compositeur," *Le Perroquet* 15, 20 September–5 November, 1982; ———, "De la critique musicale," *Le Perroquet* 31, 10–30 November, 1983; ———, "Le virtuose et son double: Charles Rosen," *Le Perroquet* 27, 29 May–16 June, 1983; ———, "Anton Webern," *Le Perroquet* 36, 25 March–9 April, 1984. A period then elapses in which Nicolas is engaged in a survey of the contemporary musical terrain through founding and editing the journal *Entretemps*. An independent, reflective and prescriptive musical intellectuality only really appears in 1988 and Nicolas' *Perroquet* lecture "Traversée du sérialisme."

⁹³ Guerino Mazzola, *The Topos of Music: Geometric Logic of Concepts, Theory, and Performance* (Basel: Birkhäuser Verlag, 2002).

⁹⁴ François Nicolas, *Le monde-Musique et son écoute* (Paris: Aedam Musicae, 2014), 14–15.

⁹⁵ ———, *Le monde-Musique et son écoute*, 11.

⁹⁶ In 2003–5 Nicolas presented a "Course on Music for Scientists and Other Non-Musicians" under the title "Hear, Read and Speak Music." The second year of the course, "The Paths of Musical Intellectuality" traced the genealogy of musical intellectuality from Aristoxenos to Boulez and Pousseur passing by Descartes, Rameau and Wagner. The forthcoming third volume of Nicolas' *Le monde-Musique* expands on this material and is dedicated exclusively to musical intellectuality. For the moment, the notes of the course may be found online: ———, "Cours Écouter, lire, dire la musique," *Entretemps*, accessed 2 July, 2014, <http://www.entretemps.asso.fr/Nicolas/IM/>.

⁹⁷ ———, "Comment Boulez et Pousseur se rapportent à Rameau," *Entretemps*, accessed 2 July, 2014, <http://www.entretemps.asso.fr/Nicolas/IM/IV.Pousseur.htm>.

⁹⁸ ———, "'Raisonances' mathématiques en musique," 30–31.

⁹⁹ Nicolas states that there are $11! = 39,916,800$ individual tone rows (and not $12! = 479,001,600$), based on the removal of transpositions of the tone rows by calculating the rows beginning on a single pitch. He does not account for interventions and retrogradations of the rows, the removal of which results in a much smaller number: 9,985,920, David L. Reiner, "Enumeration in Music theory," *The American Mathematical Monthly* 92, no. 1 (1985): 54.

1965 Stefan Bauer-Mengelberg and Melvin Ferentz were able to compute, with the help of an IBM 7094, the 1,928 unique all-interval rows capable of producing 46,272 rows by transposition and inversion.¹⁰⁰ Further research by Harald Friperntinger developed an algorithm for finding the number of such series in a row of any positive number of elements.¹⁰¹ Once equipped with this (relatively) restricted body of materials, the musician may then do what they wish with them. The calculation of all all-interval rows touches neither the heart of mathematical theory, nor that of music. However, neither does one seek to dominate the other. By thinking the *reasonances* of music and other disciplines, Nicolas affirms that “music does not think alone.”¹⁰² He thus takes leave of Badiou’s hermetic notion of world to think a “Music-world” open to the influences of language, mathematics and philosophy.¹⁰³

Messiaen’s own work of musical intellectuality, the *Traité*, is replete with eclectic *reasonances*. In a section entitled “Extra-musical rhythms and their influence on musical rhythm,”¹⁰⁴ Messiaen delineates eight non-musical sources of musical rhythm, namely the noises of nature, birdsong, the mineral kingdom, the vegetal kingdom, the animal kingdom, dance, language and poetry and the plastic arts.¹⁰⁵ It is obvious that Messiaen is here drawing up a highly personalised list. Mathematics, politics, drama and theological imagery also furnish music with structural material. In terms of poetic rhythm, Messiaen is only concerned with systems of accentuation and pitch in prose and verse, rather than any consideration of the semantic or conceptual movement of a poem. Evidently Messiaen saw the relationship of music and the extra-musical in much the same way as Nicolas does, distinguishing between fruitful incursions into neighbouring formal spaces on the one hand, and the guiding concepts of philosophy that do not themselves provide material for composition.

Following his fourth schema of art and philosophy, Badiou restricts himself to examining the philosophical consequences of singular movements in art. He is uninterested in the interaction of different worlds. As a composer, Nicolas revels in

¹⁰⁰ Stefan Bauer-Mengelberg and Melvin Ferentz, “On Eleven-Interval Twelve-Tone Rows,” *Perspectives of New Music* 3, no. 2 (1965): 102.

¹⁰¹ Harald Friperntinger, “Enumeration in Musical Theory,” *Séminaire Lotharingien de Combinatoire* 26 (1991).

¹⁰² This is a long-running theme of the seminars Nicolas convenes at the École Normale Supérieure in Paris on the relations of mathematics, philosophy, musicology and music. He explores the maxim “music does not think alone” specifically in the forthcoming third volume of *Le monde-Musique*.

¹⁰³ Nicolas, *Le monde-Musique*, vol. 1, 4 vols.

¹⁰⁴ Olivier Messiaen, *Traité de rythme*, vol. 1, 52–68.

¹⁰⁵ ———, *Traité de rythme*, vol. 1, 52.

the affirmative interaction of disciplines as *reasonances*, but has little interest in an objective or scholarly history of such interactions. Musicology is perhaps the only discipline equipped to draw a detailed picture of the various musical, political and philosophical priorities of musical works. As shall now be shown, though Popper's theory of the problem situation provides a methodology for this task, his analyses of musical problem situations were restricted to scattered comments in his later writings and autobiography.

Popper's Problem Situation

Popper was aware that musicians and scientists contend with a range of priorities when working, only some of which are directly related to the musical or scientific problem at hand. Scientific problem situations include world three objects like scientific theories, but they are brought together in a complex with other contextual motivations.¹⁰⁶ Likewise, world three musical objects such as works, techniques and styles are responses to particular problem situations including previous works and broader influences. Popper offers the example of Beethoven's Symphony No. 9 in D Minor, Op. 125, as a case in point. Popper argues that Beethoven's sketches for the introduction of the finale show the composer wrestling with "the problem of breaking into words."¹⁰⁷ Music's problem situation in this case includes musical technique and considerations of style, but also music's relationship to an extramusical text.

Another example of a musical problem situation is the emergence of polyphony, which required both invention and an existing, dogmatic body of rules. Popper suggests in another doubt-ridden passage that polyphony was the result of church singers singing wrong notes against a fixed *cantus firmus*. Here the problem situation crucially includes the dogma of the *cantus firmus* providing the conditions against which a second voice could arise.¹⁰⁸ While Popper is sceptical about the veracity of his claim, he insists that his notion of polyphony emerging from the regularity of a dogmatically-enforced tune has far-reaching implications:

According to this perhaps untenable historical conjecture, it was thus the canonization of the Gregorian melodies, a piece of dogmatism, that provided the necessary framework or rather the necessary scaffolding for us to build a new world. I also formulated it like this: the dogma provides us

¹⁰⁶ ———, *Objective Knowledge*, 107.

¹⁰⁷ ———, *Objective Knowledge*, 183.

¹⁰⁸ ———, *Unended Quest*, 57.

with the frame of coordinates needed for exploring the order of this new unknown and possibly in itself even somewhat chaotic world, and also for creating order where order is missing. Thus musical and scientific creation seem to have this much in common: the use of dogma, or myth, as a man-made path along which we move into the unknown, exploring the world, both creating regularities or rules and probing for existing regularities. And once we have found, or erected, some landmarks, we proceed by trying new ways of ordering the world, new coordinates, new modes of exploration and creation, new ways of building a new world, undreamt of in antiquity unless in the myth of the music of the spheres.¹⁰⁹

Popper's problem situation provides a methodology that conflicts with the reigning methodology of intellectual history by Quentin Skinner. In the 1960s, Skinner defined a set of subjectivist fallacies,¹¹⁰ attacking the "mythology" of the notion of "influence." How, asks Skinner, could one possibly prove with all certainty that John Locke had read the works of Thomas Hobbes? Even if you had Locke's copy of Hobbes with Locke's marginalia, how could one know that Locke really understood Hobbes? If you were lucky, there may be an insightful essay by Locke on his work. How do you know that Locke did not invent similar ideas himself, then adopted the name of Hobbes to hide behind or validate his theories? The series of doubts continues *ad infinitum*.

Skinner offers a strong solution and a weak solution to the problem of causal explanations in the history of ideas. The weak solution is to accept that there are formal similarities between texts and to trace them minutely. This does not provide you with a strong argument of causes, but at least a trail of connections to follow. The strong solution, to Skinner, is to paint as thick and detailed a picture as you can of the author's context and to consider all of the possible forces bearing upon a particular text. Popper's problem situation nuances Skinner's priorities. While a broad sweep of contextual influences must be examined, as in the first step of Delière's research method, a fine-grained analysis of the formal concerns immanent to the philosophical problem or work of art must be central to the investigation.

This discussion of Badiou and Popper has not been a random *rapprochement* of thinkers. Instead, the figures represent the divergence of continental and analytic philosophies of science in the 1950s and 1960s. The reason for their division may be more political than philosophical. Numerous interviewees in Peter Hallward and

¹⁰⁹ ———, *Unended Quest*, 58–9.

¹¹⁰ Quentin Skinner, "The Limits of Historical Explanations," *Philosophy* 41, no. 157 (1966); ———, "Meaning and Understanding in the History of Ideas," *History and Theory* 8, no. 1 (1969).

Knox Peden's interviews with the editors of the *Cahiers pour l'analyse* remark upon the resistance to Popper in France in the 1960s. Jean-Claude Milner considers the translation of Popper's *The Logic of Scientific Discovery* into English in 1959 to be a key moment in the divergence of Anglophone and Francophone epistemology.¹¹¹ While Popper became known in the English-speaking world in the 1960s, French epistemology proceeded in ignorance of Popper and with a "total indifference to logic."¹¹² Writing of the theoretical experiments of Badiou and the other authors of the *Cahiers pour l'Analyse*, Milner acknowledges that

[w]ithout knowing it, we were—and here I speak in a general sense, not only of the *Cahiers pour l'Analyse*, but also the Althusserians—we were inscribed in this moment during which Popper was in the process of transforming the horizon of epistemology in the Anglophone world, without us having any real awareness of it at the time.¹¹³

To Jacques Bouveresse, Popper was suspected by Marxists of being only "a more subtle positivist" upon his translation into French in 1973. After a Marxist period in Vienna in his youth, Popper had made a name for himself as a critic of historical materialism through his books *The Open Society and its Enemies* and *The Poverty of Historicism*. Popper's theory of falsifiability was therefore regarded as little more than epistemological window-dressing for his political beliefs. "He was more dangerous in their eyes," Bouveresse recalls, "because the theory of falsifiability had the appearance of being more plausible, more acceptable."¹¹⁴ In place of Popper, the French tradition turned to Bachelard.¹¹⁵ The prevailing attitude was expressed by Georges Canguilhem: "What reason is there for translating this book [by Popper]? What we have in France is much better."¹¹⁶

Popper-blindness persists today and may help explain the absence of critical discussion of Badiou's materialist dialectic and Popper's three worlds. Popper's theory closely matches Badiou's criteria. It is dialectical because it considers the difference between physical being and thought to be the third term of autonomous contents of thought. It is materialist because this third term has no mode of being

¹¹¹ Peden and Milner, "'The Force of Minimalism,'" 237.

¹¹² ———, "'The Force of Minimalism,'" 237.

¹¹³ ———, "'The Force of Minimalism,'" 237.

¹¹⁴ Knox Peden and Jacques Bouveresse, "'To Get Rid of the Signified': An Interview with Jacques Bouveresse," in *Concept and Form*, vol. 2, 251.

¹¹⁵ Regnault, "Structure and Subject," 17.

¹¹⁶ Peden and Bouveresse, "'To Get Rid of the Signified,'" 250.

beyond that of physical being and thought.¹¹⁷ Despite Popper's personal doubts, this thesis opposes Popper's three worlds to Badiou's diagnosis of contemporary "democratic materialism," which asserts that "there are only bodies and languages."¹¹⁸

Even if Popper excluded Marxism and psychoanalysis from science, it is astonishing that Popper should limit his examples of world three objects to those of science and art. Science and art form two of Badiou's philosophical conditions of love, politics, art and science.¹¹⁹ Even economics could have safely fulfilled Popper's broad conditions of a world three object, being a human creation that has profoundly unexpected consequences for thought and our mental and physical worlds.

Conclusion

This chapter has shown that Badiou raises the issue of musical autonomy in his first letter to Darasse. This autonomy is not an idea of absolute music, but a qualified musical autonomy with a materialist basis strikingly similar to Popper's three worlds. Throughout his career, Badiou elaborates his idea of a musical situation in widely divergent directions, discussing the musical subject as variously formal and ideological. His discussion of Messiaen, with its emphasis on the affirmative impression of his rhythmic language, comes closest to locating a musical subject that is neither a technical prescription nor a political riddle, but a radical shift in musical composition and listening. Though Badiou's philosophy has been criticised for avoiding the cultural and social contexts of innovations in art, science, politics and love, his philosophy offers several ways of thinking about context. The most relevant of these for *Antagonisme* is Badiou's four schemas of philosophy and art. *Antagonisme* is a remarkably early demonstration of Badiou's fourth schema, wherein art has something to teach the philosopher without totally determining their discourse. If Badiou has been shown to elide questions of context, Messiaen and Nicolas have been shown to embrace them, albeit in an eclectic manner skewed towards the practice of composition. Popper's problem situation, then, provides a language within which to describe Badiou and Darasse's complex philosophical and musical worlds

¹¹⁷ Badiou, *Logics of Worlds*, 4.

¹¹⁸ ———, *Logics of Worlds*, 1.

¹¹⁹ ———, *Logics of Worlds*, 71. See chapter nine for further discussion of Badiou's philosophical conditions.

while creating *Antagonisme*. While the following chapters provide original insights into the contexts bearing upon *Antagonisme*'s creation, they will also raise the question of whether radical musical innovation is possible, a question that will once more divide Badiou and Popper.

3. Text and Music at the *concours de Rome*

The following two chapters examine three musical styles that populate *Antagonisme*'s musical situation: the neoclassicism of the *concours de Rome*, the serialism of the Darmstadt school and Messiaen's experimental techniques. Darasse's first compositions show all three styles in a state of social and stylistic flux. The *concours de Rome* was undergoing a process of modernisation, serial techniques were becoming institutionalised around the world and Messiaen was becoming an establishment figure. This chapter focusses on Darasse's strikingly dissonant entry in the 1964 *concours de Rome*, *Les Rois-mages*. The entry is symptomatic of the modernisation of the competition by the Minister for Cultural Affairs André Malraux, who loosened the stranglehold of older neoclassical composers over French musical institutions. The chapter argues that Darasse was able to demonstrate literary sensitivity with a difficult poem while providing the formal variation necessary to demonstrate his compositional skill within the neoclassical competition. Contemporaneous criticisms of the competition stressed the forced and artificial relationship of text and music in the competition. Badiou used a Sartrean exterior monologue honed in his first novel *Almagestes* to bring this uneasy union to the surface of *Antagonisme*. Badiou's poet urges the separation of sense and sound, an ideology of music traceable to that of Stéphane Mallarmé reflected in the novel.

The generation of musicians wielding institutional power in the 1950s were the respected composers and performers of the day: teachers at the Conservatoire, members of the Académie des Beaux-Arts and directors of institutions. They included Paul Le Flem, Arthur Honegger, Jean Rivier, Emmanuel Bondeville, Raymond Loucheur, Henry Barraud, Henri Sauguet, Maurice Duruflé, André Jolivet, Pierre Capdevielle, Tony Aubin and Jacques Chailley. Jésus Aguila traces the lineage of this generation back to César Franck and Gabriel Fauré through Vincent d'Indy, Charles Koechlin, Paul Dukas, Albert Roussel, Henri Busser, Roger-Ducasse and Nadia Boulanger.¹ These were the "French musicians of harmonic expression,"² who were wedded to a decidedly anti-Germanic and nationalistic French aesthetic associated

¹ Aguila, *Le Domaine Musical*, 89.

² ———, *Le Domaine Musical*, 89.

with lightly-extended tonality, light textures and thematic clarity.³ Aguila describes the serialist camp's take on the French aesthetic as

[a] language constituted by a tonal macro-structure, some harmonic procedures inherited from Debussy, Fauré and Ravel, on which were grafted some local impertinences—in the manner of certain members of *Les Six*—, some folkloric or exotic twists as well as some Stravinskian or Bartokian idiotisms.⁴

By the mid-1960s the musicians of harmonic expression were still in positions of power, but their grip was loosened by the moderate reforms of the new Minister for Cultural Affairs André Malraux. Darasse's *premier second grand prix* at the 1964 *concours de Rome* was symptomatic of Malraux's attempts to modernise a competition deemed conservative and nepotistic. Darasse not a composition student at the Conservatoire de Paris at the time and it was rare for a student to win such high recognition upon their first entry in the competition.

The *concours du Prix de Rome de composition musicale* was an annual prize dating back to 1803, when it was first opened to music.⁵ The laureate of the *premier grand prix* received a four-year funded residency at the Villa Médicis, the home of the Académie de France in Rome. With laureates including Berlioz, Gounod, Bizet, Massenet, Debussy and Dutilleux, the prize was “an important rite of passage from the student arena to the professional world.”⁶

The competition proceeded in two rounds: the *concours d'essai* and the *concours définitif*.⁷ Entrance was admitted on the basis of letters of recommendation from well-known composers (often previous laureates).⁸ There was a tight link between the Conservatoire de Paris and the *concours de Rome*, as candidates were

³ See Jane F. Fulcher, “The Composer as Intellectual: Ideological Inscriptions in French Interwar Neoclassicism,” *The Journal of Musicology* 17, no. 2 (1999); Katherine Richards, “A View of the French Chamber Music ‘Renaissance’ from Parnassus,” in *Regarding Fauré*, ed. Tom Gordon (Amsterdam: Overseas Publishing Association), 77.

⁴ Aguila, *Le Domaine Musical*. 90.

⁵ For an overview of the *Prix de Rome de composition musicale*, see the summary by Alexandre Dratwicki and other essays in the same volume: Alexandre Dratwicki, “‘Une’ histoire du Prix de Rome de musique,” in *Le concours du Prix de Rome de musique: 1803–1968*, ed. Julia Lu et al. (Lyon: Symétrie, 2011).

⁶ Laura Hamer and Christopher Brent Murray, “Olivier Messiaen and the Prix de Rome as Rite of Passage,” in *Messiaen Perspectives 1: Sources and Influences*, ed. Christopher Dingle et al. (Farnham: Ashgate, 2013), 14.

⁷ Paul Landormy and Joseph Loisel, “L’Institut de France et le Prix de Rome,” in *Encyclopédie de la musique et dictionnaire du conservatoire*, 9 vols., vol. 2.6, ed. Albert Lavignac et al. (Paris: Librairie Delagrave, 1931), 3491.

⁸ Hamer and Murray, “Olivier Messiaen and the Prix de Rome,” 18–19.

usually students of the fugue and composition teachers there.⁹ The first round, the *concours d'essai*, was conducted over several days, beginning on the first Saturday of May.¹⁰ The examination proceeded under strictly controlled conditions at the Palais de Fontainebleau.¹¹ Each candidate produced a vocal fugue and a piece for chorus and orchestra on a given poem.¹² The *concours définitif* consisted in composing a cantata on a given text for two or three voices. The *concours définitif* was also undertaken over thirty days in residence under strict exam conditions.¹³

Three prizes could be awarded at the *concours de Rome*: the *premier grand prix*, the *premier second grand prix* and the *deuxième second grand prix*.¹⁴ It was expected that candidates would enter several times and advance through the tiers of awards before winning the *premier grand prix*.¹⁵ A glance at a list of laureates of the *concours de Rome* shows that this remained the case until the competition's demise, with the final *premier grand prix* awarded to Alain Louvier (Darasse's predecessor as director of the Conservatoire de Paris) in 1968 on his second attempt.¹⁶

Darasse was the only candidate awarded in 1964. The dearth of laureates may be attributed to the difficulty of the text, the strikingly modern poem *Les Rois mages* by André Frénaud.¹⁷ Frénaud wrote the poem in 1941 while a prisoner of war.¹⁸ The harrowing poem represents the biblical story of the slaughter of the innocents as a death march. The poem was to be set as a cantata, defined more broadly that year as a *scène lyrique* for two voices and orchestra.¹⁹ The choice of a modern poem for the final test of the *concours de Rome* was part of Malraux's sweeping changes to the *Beaux-Arts* system in France.²⁰ A string of poems by poets of the Resistance were chosen for the *concours de Rome*, including poems by Loys Masson, the surrealist

⁹ ———, "Olivier Messiaen and the Prix de Rome," 21.

¹⁰ Landormy and Loisel, "L'Institut de France," 3492.

¹¹ Hamer and Murray, "Olivier Messiaen and the Prix de Rome," 16.

¹² ———, "Olivier Messiaen and the Prix de Rome," 16.

¹³ Landormy and Loisel, "L'Institut de France," 3492.

¹⁴ Hamer and Murray, "Olivier Messiaen and the Prix de Rome," 17.

¹⁵ ———, "Olivier Messiaen and the Prix de Rome," 18. Gail Hilson Woldu goes into some detail on the systematic nature of the judging process that explicitly took into account the previous awards of the candidates. "Au-delà du scandale de 1905: Propos sur le Prix de Rome au début du XXe siècle," trans. Sophie Queuniet, *Revue de Musicologie* 82, no. 2 (1996): 254.

¹⁶ "Palmarès du Prix de Rome de composition musicale (1803–1968): lauréats, titres de cantates, librettistes," in *Le concours du Prix de Rome de musique*.

¹⁷ René Dumesnil, "Le concours de Rome," *Le Monde*, 7 July, 1964.

¹⁸ André Frénaud, "Les Rois mages," in *Les rois mages; suivi de L'Étape dans la clairière; et de Pour une plus haute flamme par le défi* (Paris: Gallimard, 1987).

¹⁹ Malika Combes, "Le prix de Rome dans les années 1960 : un concours anachronique ?," in *Le concours du Prix de Rome de musique*, 779.

²⁰ ———, "Le Prix de Rome dans les années 1960," 778–9.

Robert Desnos and Frénaud.²¹ The critic René Dumesnil found Frénaud's poem too complex for the requirements of the competition.

It wants to be poetic, it is nebulous and to this imprecision is added the fault of furnishing the musician with nothing, save that it roughly marks the passage from joy to hope, anguish and despair. Nothing could give the idea of an air, of a duo, of a tutti, from which it is necessary that the candidates of the *Prix de Rome* show that they know how to write them.²²

The musical requirements of the competition lagged behind the modernisation of its texts. Dumesnil was not generalising in listing the formal requirements of the competition. The form of the *scène lyrique* was strictly specified in the competition rules. Students had to ensure that their compositions included an air, a solo for each voice, a duo and a trio (if the scene was for three voices), as well as recitatives linking the different pieces and an instrumental introduction.²³ The neoclassical tonal style of the *concours de Rome* was not legislated as such, but was strictly understood by the students and teachers at the Conservatoire de Paris. The historian François Porcile describes the competition as favouring

a certain French music of which the earthquake of the war could call into question neither the material, nor the language and which pursues without a care in the world a bloodless and ossified tradition [...] . The other arts move, music in France evolves only subterraneously. On the surface, academicism, at the price of a thin modernist veneer, always has the force of law.²⁴

Woldu and Queuniet argue that the *concours de Rome* encouraged composition students to write for the stage well after stage music was a principal occupation of composers. Being drilled in antiquated techniques, students were furthermore discouraged from pursuing symphonic or chamber music.

First of all, it reinforced the idea that people should only aspire to the stage. When the Prix de Rome was founded at the end of the eighteenth century, music for the stage was the predominant genre of French music. [...] Secondly, the Prix de Rome discouraged young composers from cultivating other genres.²⁵

²¹ "Palmarès du Prix de Rome."

²² Dumesnil, "Le concours de Rome."

²³ Landormy and Loisel, "L'Institut de France," 3491–2.

²⁴ Porcile in Combes, "Le Prix de Rome dans les années 1960," 777.

²⁵ Woldu, "Au-delà du scandale de 1905," 259.

In privileging music for the theatre, the *concours de Rome* was plagued by a struggle between text and music. According to one of the competition's most fervent critics, the candidates had to write bad music and "mistreat voices" in order to wrench the slightest drama from the artificial "express-tragedies" they were shouldered with.²⁶ Badiou notes the outdated, academic nature of the *concours de Rome* in a letter to Darasse from 26 April, shortly before he was sequestered away for the *concours définitif* of the 1965 *concours de Rome*: "I imagine you in your room, working on some ceremonious Cantata, and constraining your humour to not violate invisible and sterile procedures. [...] When you leave your inventive theatre, yawn me an epistle."²⁷

Not all teachers considered the Conservatoire a training ground for the *concours de Rome*. Upon ceding his composition class to Rivier in 1962, Darius Milhaud stated that he "never accepted that one of my students should put on a mask to please the jury, because I have always remained the enemy of concessions." He seemed happy to wash his hands of preparing students for the competition, preferring that "Jean Rivier will from here on have the thankless task of defending his students in these tiresome tests of which the difficulties are not only aesthetic."²⁸ It was not often, though, that the jury of the *concours de Rome* had to contend with a spirited and unruly contestant. Malika Combes suggests that Académie des Beaux-Arts had little to fear from the students of Rivier, Jolivet and Tony Aubin, who remarked that "we dispose of a language slowly and carefully established. Respect it."²⁹

Combes warns those studying the cantatas of the *concours de Rome* that the works do not reflect the stylistic preferences of the entrants.³⁰ With the stylistic filter of academic neoclassicism in mind, the works can nevertheless reveal quite a bit about the composers' stylistic tendencies. Christopher Brent Murray and Laura Hamer show how Messiaen's choruses for the 1930 and 1931 *concours d'essai* are "half compositions, half academic exercise," reflecting harmonic and rhythmic elements of his published compositions from the period.³¹

Given the weight of clichés around the conservatism of the *concours de Rome*, Darasse's entry throws up a few surprises. The nightmarish text allowed Darasse to amplify the dissonant, "local impertinences" of his setting. Darasse's entry resonates

²⁶ Lalo in ———, "Au-delà du scandale de 1905," 261.

²⁷ Alain Badiou to Xavier Darasse, 26 April, 1965, Msc31.7.

²⁸ Milhaud in Combes, "Le Prix de Rome dans les années 1960," 784.

²⁹ ———, "Le Prix de Rome dans les années 1960," 783.

³⁰ ———, "Le Prix de Rome dans les années 1960," 783.

³¹ Hamer and Murray, "Olivier Messiaen and the Prix de Rome," 41.

with Combes' observation that "[i]n fact, it would seem that all the *pensionnaires* interested themselves in other aesthetics than strict neoclassicism: modal and atonal languages, polytonal and microtonal writing, etc,"³² a view further corroborated by *Antagonisme* the following year.

Les Rois-mages

Frénaud's poem represents the "three kings" as three victims of war. They are "new companions mixing with the troupe, / who came out of the trees like woodsmen."³³ In their afflictions and associated colors, they resemble horsemen of the apocalypse, albeit with an idiosyncratic colour scheme. The open wounds of the "wandering Jew" associate him with the colour red. The "black king" is "sick to death" and the "pastor of hunger" has shining blue eyes that illuminate his coat of peelings. One may extend this reading and consider the narrator to be the fourth horseman, death, guiding along the "raging herd of child prisoners."

Le Juif errant peinait, aux blessures baffouées.
Des fourrures couvraient le roi noir malade à mourir.
Le pasteur de la faim est avec nous,
ses yeux bleus éclairent son manteau d'épluchures
et le troupeau rageur des enfants prisonniers.

The wandering Jew laboured, flouting his wounds.
Furs covered the black king sick to death.
The pastor of hunger is with us,
his blue eyes lighting up his coat of peelings
and the raging herd of child prisoners.

Figure 2: André Frénaud, "Les Rois mages," 10–13. Approximate translation.

The poem opens with the narrator voicing a series of doubts about the group's journey. They are not sure whether they are moving fast enough, whether they have travelled far enough, or whether they will ultimately lose the faint star they are following among the moon and the constellations.³⁴ In Darasse's setting, these questions are posed by the bass and the tenor over a minor third pedal, the remnant of the instrumental introduction that captures the limping progress of the three "kings."

³² Combes, "Le Prix de Rome dans les années 1960," 783–4.

³³ Frénaud, "Les Rois mages," 141, 8–9.

³⁴ ———, "Les Rois mages," 141, 1–5.

EXAMPLE 1: Xavier Darasse, *Les rois-mages*, Opening, bars 1–21.

The musical score for the opening of *Les rois-mages* by Xavier Darasse, bars 1–21, is presented in three systems. The first system (bars 1–7) shows the initial 5/4 time signature and includes markings for 'rallent' and 'Plus vit ♩ = 120'. The second system (bars 8–14) continues the complex rhythmic patterns. The third system (bars 15–21) shows the continuation of the descending figure and the irregular ostinato in the bass. The score is written for piano, with a treble and bass staff. The bass line features a descending figure of major seconds followed by augmented fourths, which is a key structural element of the piece.

A descending figure consisting of major seconds followed by augmented fourths clashes with the pedal. This descending figure returns five times throughout the piece to link the episodes in the narrators' journey through doubt, joy and hope, anguish and despair, as well as preceding the final line of the poem.

An irregular ostinato on B \flat , B and F appears in the bass in bar 9, reaffirming the B \flat -minor tonality or suggesting a locrian mode on B \flat . The staggering rhythm of this ostinato hints at Darasse's preoccupation with order as a structuring principle that will become all-determining in *Antagonisme*. The rhythm is obtained by filling the 5/4 bar with a combination of minims and crotchets and permuting them. To give a greater sense of irregularity, the permutations chosen from bar to bar are not sequential. Bars 9–12 consist of the four possible permutations of three crotchets and a minim. Bars 13–15 consist of the three permutations of one crotchet and two minims. New voices appear in the bass in bars 15 and 18, the first exploring a chromatic aggregate and the second an octatonic scale. The new tonal colours seem to evoke the three kings staggering out of the woods.

Bars	1–21	22–37	38–64	65–86	87–191	192–208	209–55	256–65
Voices	Orch.	Tutti	Bass	Tenor	Tutti	Tenor	Tutti	Orch.
Form		Recitative	Aria	Aria	Fugue	Recitative	Duo	
Theme		Doubt		Joy	Fear	Anguish	Despair	
Lines		1–5	6–14	15–16, 18–19, 26–27	27–30, 33–36	37–41	42–46, 53–61	62

Figure 3: Summary of Xavier Darasse, *Les Rois-mages*, Rmb612, Médiathèque Hector Berlioz, Paris.

Darasse's setting accommodated the requisite recitatives, arias and duos through a partition of the poem into its constituent episodes expressing doubt, joy, fear, anguish and despair. The tenor sings an aria about the "joy of the world born in a house near here."³⁵ With the words "The chorus turns against us,"³⁶ a passage of frenetic imitation expresses the fear of their journey "all mixed up and separated."³⁷ The piece reaches a climax as the tenor and bass sing in unison "the innocents are lying in the grass. / And each day we stir puddles in the lands."³⁸ The anguish of the incense "rotten in the ivory boxes", the gold that has "curdled our hearts like milk" and the "young girl given to the soldiers" is expressed in a tenor recitative.³⁹ At the end of the piece, the bass and tenor sing a despairing duet, beginning "We are lost."⁴⁰ The work provides what is expected from a *concours de Rome* entry: an aesthetically unified composition demonstrating a range of standard compositional forms.

It is ironic that the cultural policies contributing to the composition of *Les Rois-mages* may have led to the dissolution of the conditions in which it was composed. Combes claims that May 1968 only hastened a process of modernisation and democratisation of the arts instigated by Malraux a decade earlier.⁴¹ The events of May 1968 unfolded in the very midst of the *concours de Rome* of that year.⁴² Though a new concours was quickly designed without the fugue and chorus of the *concours d'essai* and with only one jury member from the Académie des Beaux-Arts, the very

³⁵ "la joie du monde née dans une maison par ici." ———, "Les Rois mages," 141, 16.

³⁶ "le chœur se tourne contre nous" ———, "Les Rois mages," 142, 27.

³⁷ "mêlés à tous et séparés" ———, "Les Rois mages," 142, 29.

³⁸ "les innocents sont couchés dans l'herbe. / Et chaque jour nous remuons des flaques dans les contrées." ———, "Les Rois mages," 142, 33–4.

³⁹ "Tout l'encens a pourri dans les boîtes en ivoire, / et l'or a caillé nos coeurs comme du lait. / La jeune fille s'est donnée aux soldats," ———, "Les Rois mages," 142, 37–39.

⁴⁰ "Nous sommes perdus." ———, "Les Rois mages," 143, 42.

⁴¹ Combes, "Fin et devenir du concours de Rome," 790.

⁴² ———, "Fin et devenir du concours de Rome," 791.

notion of the competition fell foul of the spirit of a time “hostile to any kind of selection by tests.”⁴³ The competition was not reinstated until 1971, when it returned under a different form.⁴⁴ Upon its reinstallation, the age of serialism, even in its academicised form, was over. The new competition to academic norms was marked by the musical current emanating once again from Messiaen’s class: the spectralism of Tristan Murail, Gérard Grisey and Michaël Levinas.⁴⁵

Darasse’s success in the 1964 *concours de Rome* is symptomatic of the competition’s modernisation. While candidates were still required to compose an anachronistic *scène lyrique* or symphonic poem, a modern, surrealist text gave candidates the opportunity to experiment with an expressionistic idiom. Darasse grasped this opportunity, filling his score with clashing modes and rhythmic permutations.

Darasse’s success was testament to his compositional felicity and literary sensitivity, competencies that he would exhibit once more at the next year’s *concours de Rome*.⁴⁶ The text for 1965 was *Les visions prophétiques de Cassandre* by Robert Brasillach (who was executed after the war for editing the pro-Nazi and antisemitic newspaper *Je suis partout*), based on an excerpt from Aeschylus’ *Agamemnon*. Darasse did not win a prize in the 1965 *concours*, but was singled out for mention by the journalist Jacques Lonchamp. Lonchamp regretted that Darasse would have to wait “another year of purgatory,” since “his score is in effect the only one that is really accomplished, which has a dramatic architecture, and in which the writing is perfectly adapted to its text.”⁴⁷

Sartre and Voice

To take a detour via the problem situation of *Antagonisme*, Badiou’s separation of text and music lays bare the artificiality of the “express tragedies” of the *concours de Rome*. *Antagonisme* opens with a foreword to be spoken by the narrator describing the work. The text given throughout this thesis, which can be found in full in appendix two, is taken from Badiou’s fair copy. Text highlighted with bold typeface indicates that the text was cut in transmission to the manuscript score.

⁴³ ———, “Fin et devenir du concours de Rome,” 792.

⁴⁴ ———, “Fin et devenir du concours de Rome,” 792.

⁴⁵ ———, “Fin et devenir du concours de Rome,” 795–6.

⁴⁶ Xavier Darasse, *Les visions de Cassandre*, Rmb613.

⁴⁷ Jacques Lonchamp, “Un palmarès discutable au concours de Rome,” *Le Monde*, 6 July, 1965.

Notre jeu n'est pas d'illustrer musicalement une parole. Mais, d'établir entre le sens et le son une controverse, dont l'un et l'autre feront leur propos, **leur matière**, leur trame clandestine. **Le texte produit ainsi la double image d'une musique où l'ordre rigoureux des formes se pare d'une séduction mobile qui doit à la fin—prétend la voix—masquer et contredire cet ordre même. A quoi la musique oppose continuellement [sic] son existence, parfois rompue par ruse, irrécusable autant qu'illicite.** L'unité sonore s'écoute et s'existe, je n'en dis rien. Le texte qui la provoque, **au sens querelleur du terme**, se divise en vocables rassemblés: ceux qui désignent l'ordre—table tutélaire, fondation sans trace, pierre exacte, juridiction—; ceux qui désignent l'ornementation où cet ordre se déploie et se risque—labiales pourrissantes, voile, ville, perte scintillante, lierre rouge—. **Une phrase est médiatrice: affleurement des signes.** De ces mots natifs, **par alliances, dérivations, contrastes**, finit par surgir une Ville imaginaire et déserte, un vieux rêve d'Atlantide retrouvée, image même—**selon le récitant**—de la Musique, en quoi les assemblages les plus durs s'ensevelissent à la fin, et retournent vers les contours flous et sorcelleries d'une interminable Nature. Commençons.

Our game is not to musically illustrate words, but to establish between sense and sound a controversy from which the one and the other will make their intentions, **their material**, their underground framework. **In this way the text produces the double image of music where the rigorous order of forms is adorned with a mobile seduction that must finally—the voice claims—mask or contradict this very order. To which the music continually opposes its existence, sometimes broken by trickery, as indisputable as it is illicit.** The sonorous unity is heard and exists, I say nothing about it. The text that provokes it, **in the quarrelsome sense of the term**, is divided into collections of terms: those that designate order—tutelary table, foundation without trace, exact stone, jurisdiction—; those that designate the ornamentation where this order is deployed and risked—rotting labials, veil, city, sparkling loss, red ivy—. **One phrase is mediatory: emergence of signs.** From these native words, **through alliances, derivations, contrasts**, ultimately arises an imaginary and deserted city, an old dream of Atlantis rediscovered, the same image—**according to the narrator**—of Music, in which the hardest assemblages are eventually buried and return to the soft contours of an interminable Nature. Let us begin.

Figure 4: Alain Badiou, “Avant-propos,” *Sonate* [*Antagonisme*], private collection of Alain Badiou.

The Foreword establishes a distance between the theoretical stakes of the work and the text of the “poet.” The poet is not Badiou himself, but an ideological voice to be refuted. Here we find a continuation of Badiou’s Sartrean preoccupation with voice and language as explored in his first novel *Almagestes*. Badiou wrote the novel in 1959,⁴⁸ at the height of Sartre’s popularity in France. As a student, Badiou had made contact with Sartre and Simone de Beauvoir. Sartre declared that the book had a “radical and intransigent manner” of posing questions,⁴⁹ while De Beauvoir wrote an

⁴⁸ Alain Badiou, *Pocket Pantheon*, trans. David Macey (London: Verso, 2009). 44.

⁴⁹ Sartre in Tho and Bianco, eds., *Badiou and the Philosophers*, xxxix n7.

introduction to an excerpt of the book published in *Les Temps Modernes*.⁵⁰ Badiou had contacted De Beauvoir while still living in Toulouse to express his support for an article she had written in defence of Sartre against Merleau-Ponty's criticism in *Les aventures de la dialectique*.⁵¹ Badiou met De Beauvoir to discuss philosophy and politics several times after he arrived in Paris in 1956 and became "an absolutely convinced Sartrean."⁵² In writing *Almagestes*, Badiou saw himself working in a tradition including Sartre and "inherited from Voltaire or Rousseau where philosophy and the novel were undistinguished."⁵³

The poet's discourse has obvious similarities to Sartre's preface to René Leibowitz's book *L'Artiste et sa conscience* published in 1950. While recognising the social uses of music and the role of taste in defining class, Sartre argues that music is incapable of directly expressing political commitment because it is a non-signifying art form.⁵⁴ Can one read an echo of Sartre in the "alliances," "derivations" and "contrasts" of text and music in Badiou's foreword? Sartre states that "There can be no musical engagement unless the work of art is such that it can receive only one verbal commentary. In a word, the sonorous structure must *repel* certain words and *attract* others."⁵⁵ As chapter six argues, the theme of "antagonism" is a ruse hiding a deeper, strictly musical dialectic. The Sartrean theme of commitment returns as a principle of musical development, separated from its political connotations.

The poet's text in *Antagonisme* is a form of exterior monologue, where a character speaks to an other off-stage or off-screen. Badiou uses this technique throughout *Almagestes* in accordance with Sartre's formula of existential consciousness: "Consciousness is a being such that in its being, its being is in question insofar as this being implies a being other than itself."⁵⁶ As Tzuchien Tho has identified, Badiou reflects this notion of consciousness in the footnote in *Almagestes* "Given that consciousness is a projection in the world, no box can represent it, *exterior monologue*."⁵⁷ The poet of *Antagonisme* uses two pronouns to address this other, the informal "tu," when addressing the audience and the formal

⁵⁰ de Beauvoir, "Sur 'Almagestes'."

⁵¹ Goémé, "Alain Badiou."

⁵² Tho and Bianco, *Badiou and the Philosophers*, xiv.

⁵³ Badiou in Tho and Bianco, *Badiou and the Philosophers*, x.

⁵⁴ René Leibowitz, *L'Artiste et sa conscience* (Paris: Éditions de l'Arche, 1950), 214.

⁵⁵ ———, *L'Artiste et sa conscience*, 214.

⁵⁶ Sartre in Tho and Bianco, eds., *Badiou and the Philosophers*, xiv.

⁵⁷ Alain Badiou, *Almagestes*, La Trajectoire Inverse (Paris: Éditions du Seuil, 1964), 49n. Translation by Tho and Bianco, eds., *Badiou and the Philosophers*, xl n19.

“vous” when he is addressing the music itself. Music is thus another being, albeit one that exists in itself rather than for others.⁵⁸ As Peter Hallward has suggested, Badiou’s philosophy of art reflects “the sphere of ideal (or non-“existent”) aesthetic purity and necessity championed in Sartre’s earliest works,” namely *Nausea* and *The Imaginary*.⁵⁹

Almagestes

In an interview on the television show *Lectures pour tous*,⁶⁰ a young and rather shy-looking Badiou explained the rationale behind his novel. The novel was to form the first part of the Trajectoire Inverse trilogy, which was to separately address three “pillars” of the novel. *Almagestes* deals with language, while the other two books of the trilogy would address characters (*Portulans*, which appeared in 1967) and context (*Bestiaires*, which exists as an incomplete draft). In *Almagestes*, Badiou explores themes of silence, falsity, theatre and poetry through a vast array of languages: “Mathematical language, pictorial language, the use of citation, all possible means.” Music also appears throughout the book as score excerpts, as references to musical works and as an abstract form derived from solfege that structures the final chapter. Badiou describes the four main characters in *Almagestes* as different “voices,” since character as such will be explored in *Portulans*. Fréville, “the voice of he who has reflected a little, philosophically, on all the themes”⁶¹ is described in a footnote in *Almagestes* as “none other than Alain.”⁶² Badiou was not averse to including his own voice in his work, although it takes the form of an ideological type rather than a means of personal expression. As will be shown, the narrator of *Antagonisme* “breaks character” to express an idea of music closer to Badiou’s own.

Mallarmé and the Decapitated Theme

⁵⁸ For further reading on Sartre’s aesthetics in relation to music, see Mark Carroll’s article on music in Sartre’s *Nausea*. Mark Carroll, “‘It is’: Reflections on the Role of Music in Sartre’s *La Nausée*,” *Music and Letters* 87, no. 3 (2006).

⁵⁹ Hallward, *Badiou: A subject to truth*. 388–89 n16.

⁶⁰ Pierre Dumayet and Pierre Desgraupes, “Alain Badiou,” in *Lectures pour tous* (France: Radiodiffusion-Télévision Française, 1964).

⁶¹ ———, “Alain Badiou.”

⁶² Badiou, *Almagestes*. 103n. Tzuchien Tho closely relates the novel to Badiou’s time at the ENS, with the characters Bérard, Fréville, Dastaing and Chantal being pseudonymns for Pierre Verstraeten, Emmanuel Terray, Badiou and Françoise Badiou respectively. I would agree with this interpretation, with the assignations of Dastaing and Fréville swapped on the strength of Badiou’s in-text admission. Tho and Bianco, eds., *Badiou and the Philosophers*, xl n17.

If Badiou's Sartrean formation helps us understand the use of exterior monologue in *Antagonisme's* text, it owes much of its content to the poet Stéphane Mallarmé. The poet's suspicion of music as illusion and affect owes less to Sartre's aesthetic purity than it does to Mallarmé's opposition of music and letters. This opposition is also explored in *Almagestes*. Music inhabits a special place among the diverse languages of the novel. Rather than relating equally to the novel's themes, music is mediated by a poetic conception of music as a challenge to the word's sovereignty.⁶³ Mallarmé declared in *Crise de vers* that "[i]t is not elementary sonorities by the brass, strings, and woodwinds, undeniably, but the intellectual word at its peak that must fully and convincingly produce, as the relations that exist between everything, Music."⁶⁴ A letter from Mallarmé to Edmund Gosse illuminates this statement. Mallarmé contrasts the big "M" music of Ideas with the little "m" music of the "euphonic rapprochement of words."⁶⁵ Instead, Mallarmé wants us to understand "*Music* in the Greek sense, basically signifying the Idea or rhythm of rapports."⁶⁶

In *Almagestes*, Chantal and Fréville's arguments about music follow the lines drawn by Mallarmé. Chantal privileges the sensual and evocative side of music and poetry. Chantal peppers her journal with references to Debussy,⁶⁷ Bach,⁶⁸ Richard Strauss,⁶⁹ and Wagner.⁷⁰ By pasting fragments of the scores of *Parsifal* and *Elektra* into her journal alongside mathematical formulas, poems, and pictures, Chantal seeks to recover the silence of form, or the "flesh of the world."⁷¹ She plays Debussy and marvels at "this perfect language that can name everything, being not so much sign, we could say, but the secret of things, their prayer."⁷² Fréville calls it "a session of vapid fucking, a nonchalant sexuality in F Sharp."⁷³ Fréville believes in the transparent singularity of the poem, that "the poem [...] is written to prove its own

⁶³ The closest Badiou has come to explicitly restating Mallarmé's position is at the beginning of his lecture "Est-il exact que toute pensée émet un coup de dés?" for the Perroquet lecture series in 1986: "To muster the courage to propose only a few ornaments, I will mediate myself through this thesis of Mallarmé, which is that only someone who speaks can be equal to all that music arouses." Alain Badiou, "Est-il exact que toute pensée émet un coup de dés?," Les conférences du Perroquet 5, supplement to *Le Perroquet* 61, Paris, 1986.

⁶⁴ Stéphane Mallarmé, *Œuvres complètes*, 2 vols., vol. 2 (Paris: Gallimard, 2003), 212.

⁶⁵ ———, *Œuvres complètes*, 807.

⁶⁶ Mallarmé, *Œuvres complètes*, 807.

⁶⁷ Badiou, *Almagestes*, 100.

⁶⁸ ———, *Almagestes*, 113–14.

⁶⁹ ———, *Almagestes*, 98.

⁷⁰ ———, *Almagestes*, 96–97, 118, 13–14.

⁷¹ ———, *Almagestes*, 104.

⁷² ———, *Almagestes*, 101.

⁷³ ———, *Almagestes*, 100.

existence and justify that we say the same thing that it says and it alone will say.”⁷⁴ Fréville’s assertion of the transparency of the poem reflects the syntactic focus of Mallarmé by the Mallarmé scholar Gardner Davies, from whom Badiou drew his own manner of “laying flat” Mallarmé’s poems in his philosophical readings.⁷⁵

Chantal wonders what sort of “fidelity,” what sort of work of art, there could be “for he who amputates it from its memorable flesh.”⁷⁶ Chantal touches on the symbolism of St. John the Baptist so central to the theme of music in *Almagestes*. St. John’s decapitation is a key image in Mallarmé’s work and a feature much elaborated upon by Davies. To Davies, the severed head is the image of “the depersonified author who has succeeded in strip himself from his individual consciousness,”⁷⁷ or “the solution of the conflict between idealist aspirations and the obstacles of the human body”⁷⁸ Mallarmé describes the act of decapitation as severing the head from its “ancient discords / With the body.”⁷⁹ Chantal pastes the Faith theme from Parsifal into her diary to show how Wagner has given “the Faith of Parsifal in melodious donation.”⁸⁰ Badiou then “amputates” or abstracts the solfege symbols of the Faith theme to structure the final chapter of the novel.

St. John’s decapitation is associated with music through the symbols of solfege. As Heath Lees describes, Mallarmé was part of the first wave of students to benefit from the spread of singing lessons in schools after its introduction in Paris in 1835.⁸¹ He would have been familiar with the history of solfege promulgated by the immensely successful *Manuel musical* by Bocquillon Wilhem. The solfege names of the seven diatonic pitches were taken from the first syllables of the six lines of Guido d’Arezzo’s hymn to St. John *Ut queant laxis*, with the seventh degree *Si* being St. John’s initials.⁸² The “decapitation” of the solfege syllables from their lines then became representative of the separation between the physical and the ideal. In *Almagestes*, Chantal listens to Bach’s *St. John Passion* before an entire chapter of *Almagestes* is “recapitated” with solfège.

⁷⁴ ———, *Almagestes*, 99.

⁷⁵ ———, *Conditions*, trans. Steven Corcoran (London: Continuum, 2008), 296n.

⁷⁶ ———, *Almagestes*, 96.

⁷⁷ Gardner Davies, *Mallarmé et le drame solaire: essai d’exégèse raisonnée* (Paris: José Corti, 1959), 49.

⁷⁸ ———, *Mallarmé et le drame solaire*, 49.

⁷⁹ Mallarmé in ———, *Mallarmé et le drame solaire: essai d’exégèse raisonnée*, 29.

⁸⁰ Badiou, *Almagestes*, 96.

⁸¹ Lees, *Mallarmé and Wagner*, 27.

⁸² ———, *Mallarmé and Wagner*, 29.

Badiou uses the four pitches of the “Faith” motif from *Parsifal* to structure the final chapter of *Almagestes*.

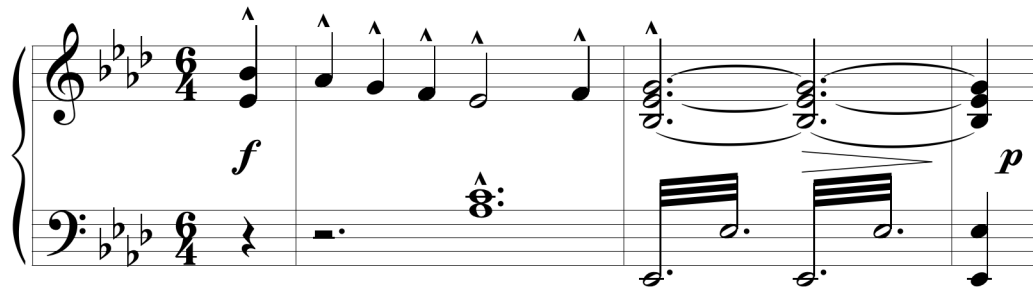


Figure 5: Faith theme from *Parsifal* in Alain Badiou, *Almagestes*, 96. The “erroneous” dotted semibreve from Badiou’s example has been retained.

Each of the four pitches of the motif “Mi bémol, la bémol, sol, fa, mi bémol, fa, sol” introduces the voice of a witness of a protest against the war in Algeria. Each solfège name then introduces an episode in the voice of its relative character, with the accidental “bémol” hidden in the ensuing text. For instance:

Minerve, bénéficiant d’une mort, va, nous dit-on, trancher le débat. [...]
La Bégum va pas rigoler, petit père ! [...]
Solidaire, puis-je, méridien, l’être d’un mythe qui se sacre dans l’énoncé de sa vacance, [...]
Faramineux alors merde en saveur terrible qui n’y croyait n’y croyant plus ils le décanillent bouge le P.O.S.I. se laisserait déborder bordée de jeunes [...]⁸³

Each witness has a different ideological perspective that governs their vocabulary, phrasing and visual themes. The motif is repeated five times, with a final sequence presenting each of the four witnesses in sequence: “Mi bémol, La bémol, Sol, Fa.”

By using the literary origins of solfège as a symbol for music, Badiou “leapfrogs” from a literary representation of music (the *Ut queant laxis* hymn), over music itself, to a new literary representation of music. To see the inherent unmusicality of Badiou’s use of the Faith theme, consider how he adds paragraphs starting with “ré” and “si” in the first “sol” section of each repetition of the theme in the chapter. This “sol” is a passing note whose harmonisation or decoration by a G-major triad would be harmonically out of place and does not appear as such in the

⁸³ Badiou, *Almagestes*, 253–55. My emphasis.

Parsifal score. Could Badiou be indulging in some self-mockery? Like Badiou, the “sol” witness of the allée du Boulingrin is a writer. In what could be an allegory for the writer’s relationship to music, he does not participate in the protest against the war in Algeria, but repeatedly checks that his window is locked against it.

Conclusion

Darasse’s *premier second prix* in the 1964 *concours de Rome* shows a competition modernising under Malraux’s administration. Winning the award on his first entry in the competition in a year with an uncommonly difficult text shows a literary sensitivity that would put him in good stead when collaborating on *Antagonisme*. In *Antagonisme*, Badiou uses exterior monologue parodying the Mallarméan musical ideology of *Almagestes*. Badiou presents a relationship of subversion between text and music contradicting the relationship of accompaniment proper to academic composition competitions. Darasse’s expressive atonality was the least worrying feature on the horizon of France’s conservative teachers of composition. For Darasse’s submission to the *concours de composition* at the Conservatoire, he engaged with serialism and Messiaen’s experimental techniques.

4. Serial Listening and Ordinal Listening in the Context of European Modernism

This chapter considers Messiaen's affirmation of order as a musical parameter within the frame of European musical modernism. The chapter then shows how Darasse explores the difference between serial and ordinal transformations by modifying the order inherent in *Antagonisme*'s serial matrices. The examination of Messiaen's place in accounts of musical modernism reveals modernism to be a quintessential interworldly problem found at the intersections of political and musical situations. The tendency to distance Messiaen from his serialist counterparts by focussing on the religious glosses of his works reveals the bias of contemporary scholarship towards the ideological elements of political and musical problem situations including economics and aesthetics. But what are the codetermining political and musical situations at the heart of the twentieth century? How can they be discussed as interacting without collapsing into each other? This chapter cannot hope to answer this entire question. Instead, the chapter examines the musical pole of musical modernism, considering Messiaen's use of order-based permutations within Nicolas' history of serialism as a history of thematism. Order-based permutations dissolve the series as a theme and propose a form of listening based on the ordinality of elements. Darasse's reordered serial matrices, as reconstituted from markings in the score, provide an example of such anti-thematic disruption.

If 1964 seems rather late to speak of dodecaphonism as a new or controversial body of techniques, this only serves to highlight the ponderous inertia of the ideology of the French aesthetic and its philosophical defenders. According to Aguila, the French aesthetic was so widely and completely shared that it appeared "universal" to the eyes its protagonists and "little disposed them to understand the young post-Webernian ideology."¹ According to Aguila, the "French musicians of harmonic expression" used their positions of power to discredit the fledgling serial school, which they called the "the French dodecaphonic clan."² In a radio interview, the critic Bernard Gavoty reprimanded Messiaen for his "indulgence for the serial movement"

¹ Aguila, *Le Domaine Musical*, 90.

² ———, *Le Domaine Musical*, 90. The term "la chapelle dodécaphonique française" plays on the double meaning of "chapelle" as both "clan" or "clique" and "chapel" thus giving a religious connotation to the adherents of serial technique.

and Tony Aubin told that “out of sixty students who have passed through my composition class in eight years, essentially, only two have been seduced by dodecaphonism. One is currently very tired, the other has disappeared.”³

The “French dodecaphonic clan” included the total serialism as practiced by Pierre Boulez and associated with the Darmstadt International Summer Course for New Music. Though he did not lecture at the Darmstadt Summer Courses,⁴ Messiaen’s “Mode de valeurs” was composed there in 1949 and a recording of the piece was played in 1951.⁵ The piece was influential in Pierre Boulez’s development of total serialist techniques.⁶

Darasse’s idiosyncratic use of serial technique in *Antagonisme* challenges the myth of serial orthodoxy and the binary of totalitarian modernism and free postmodernism. A significant body of scholarship is now challenging the “myth of serial orthodoxy” by exposing the plurality of post-war compositional techniques that were taught at the Darmstadt courses in the 1950s and 1960s.⁷ Paul Attinello and Martin Iddon both highlight the brevity of the reign of total serialism at Darmstadt and the ways in which young composers challenged ideals of formal unity. In particular, the arrival of John Cage at Darmstadt in 1958 led composers to exert a range of levels of control over their musical parameters. Iddon believes that one can only speak of a “Darmstadt School” of total (or as he calls it, “multiple”) serialism between 1955 and the introduction of John Cage’s music as a rival musical ideology in 1957.⁸ Iddon argues that the perception of a serialist “cult” at Darmstadt was in a large part perpetuated in the press by the musicologist Herbert Eimert and that “by 1958, there was no serial orthodoxy to vanquish, only the discourse that surrounded it.”⁹ Messiaen forms part of this history, sitting on the edge of the “other Darmstadts,” but certainly within the purview of a study of alternative dodecaphonic techniques.¹⁰

³ André Hodeir in ———, *Le Domaine Musical*, 90.

⁴ Messiaen attended the Summer Courses and performed his *Visions de l’amen* in 1949, though not in the guise of a lecturer or teacher. Borio described him as paying a “brief visit.” Borio in Iddon, *New Music at Darmstadt*, 31.

⁵ ———, *New Music at Darmstadt*, 59.

⁶ ———, *New Music at Darmstadt*, 31.

⁷ The term comes from Joseph N. Straus, “A Revisionist History of Twelve-Tone Serialism in American Music,” *Journal of the Society for American Music* 2, no. 3 (2008): 377.

See also Attinello et al., eds., *Other Darmstadts* and Iddon, *New Music at Darmstadt*.

⁸ ———, *New Music at Darmstadt*, xii.

⁹ ———, *New Music at Darmstadt*, xii.

¹⁰ Allen Forte intends his article “Messiaen as Serialist” to form a chapter of just such a study of alternate uses of dodecaphonic musical language between 1921 and 1951.

In his research into the “other Darmstadts,” Attinello has had the dubious pleasure of seeing the binary of modernism and postmodernism clash with his own findings. Attinello shows how Dieter Schnebel’s series of works *für stimmen* (... *missa est*), composed over the heady years 1956–69, react “against the abstraction and limitations implicit” in serialist technique.¹¹ Attinello’s division of Schnebel’s processes into Boulezian “serial” and “modernist” techniques on the one hand and Cagean “anti-serialist,” “postmodernist” techniques on the other neatly elides the explosion of contrasting serialist techniques in the 1950s, as well as those ideologies of serialism, such as that developed by Umberto Eco, that align it with “open,”¹² clearly postmodern forms of creative production. Contrasting German and American academics (and speaking on behalf of the latter), Attinello declares that “we are rarely discomfited by works which break open or attack habit, form, expectation or cerebration. In fact, we (or at least many of us) love them.”¹³ Attinello’s assumption that Germans are somehow more squeamish than Americans about perverting their musical techniques is challenged by the unorthodox methods he and his colleagues uncover. That Schnebel considers himself a “serialist” despite including aleatoric elements in his works and giving unequal importance to certain serialised sounds should instead be taken as a sign that the distinction between systematicity and freedom is not constitutive of serialism as such.¹⁴ Attinello is closer to the mark in saying that his analysis of *für stimmen* (... *missa est*) shows Schnebel “creating a distinct and very different kind of serialism, one that is, in an important philosophical and cultural sense, different from the serialism that we take for granted in scholarship and aesthetic discussion.”¹⁵ Could one then forego the category of modernism completely when writing a history of twentieth-century music?

From Modernism to Thematism

The myth of serial orthodoxy is another example of the “xenophobic-capitalist” quilting point that Harper-Scott identifies in Taruskin’s writings.¹⁶ So Harper-Scott

¹¹ Paul Attinello, “Dialectics of Serialism: Abstraction and Deconstruction in Schnebel’s *für stimmen* (... *missa est*),” *Contemporary Music Review* 26, no. 1 (2007): 40.

¹² See in particular Umberto Eco, “Series and Structure,” in *The Open Work*, trans. Anna Cancogni (Cambridge: Harvard University Press, 1989): 217–75.

¹³ Attinello, “Dialectics of Serialism,” 40.

¹⁴ ———, “Dialectics of Serialism,” 42.

¹⁵ ———, “Dialectics of Serialism,” 42.

¹⁶ Harper-Scott, *The Quilting Points*, xv.

argues, the fourth volume of Taruskin's *Oxford History of Western Music* (which Harper-Scott pithily dubs "the longest suicide note in musicological history"¹⁷) "eradicates" modernism and "is blind to its elevation of an American Cold-War perspective to the level of historical objectivity."¹⁸ Harper-Scott criticises Taruskin's depiction of Europeans as "racist, imperialist, hidebound to a class system, anti-American and anti-Semitic to a pitch of frenzy."¹⁹ Taruskin's "European" becomes a "quilting point," or a signifier that retrospectively determines the meaning of any composer, piece of music or compositional technique that is so unlucky as to be associated with it.²⁰

Taruskin's "childlike Cold-War subject position, in which all Europeans appear to him as either fascist or communist,"²¹ is particularly evident in his writing on Boulez. In fact, Boulez has the dubious privilege of being portrayed as both. Taruskin declares that Boulez's famous remark about the uselessness of non-serial composers is a product of "the Communist journalism of his day [...]." ²² This is no great feat of scholarship, considering that Boulez declared himself "300% Marxist-Leninist" throughout the 1960s. ²³ He then takes aim at Boulez's admittedly outrageous claim that "[s]ince the Viennese discoveries, any musician who has not experienced—I do not say understood, but truly experienced—the necessity of the dodecaphonic language is USELESS."²⁴ Taruskin associates Boulez's tirade with Eimert's statement that "if we say that only composers who follow Webern are worthy of the name, it is no new 'totalitarian order' but a simple statement of fact." ²⁵ Taruskin observes: "Nazi race theory, too, had once been a simple fact by similar decree." ²⁶ Thus by a chain of associations validated by the xenophobic quilting point of the European, Taruskin moves from Boulez's rhetoric to that of Nazi Germany, passing by a musicologist with a penchant for tone rows.

¹⁷ ———, *The Quilting Points*, 3.

¹⁸ ———, *The Quilting Points*, 3.

¹⁹ ———, *The Quilting Points*, 6.

²⁰ ———, *The Quilting Points*, 7.

²¹ ———, *The Quilting Points*, 6.

²² Richard Taruskin, *Music in the Late Twentieth Century*, The Oxford History of Western Music 5 vols., vol. 5 (Oxford: Oxford University Press, 2010), 19; Boulez in ———, *Music in the Late Twentieth Century*, 19.

²³ Dominique Jameux, *Pierre Boulez*, trans. Susan Bradshaw (Cambridge: Harvard University Press, 1991), 158.

²⁴ Boulez in Taruskin, *Music in the Late Twentieth Century*, 19.

²⁵ Taruskin, *Music in the Late Twentieth Century*, 19.

²⁶ ———, *Music in the Late Twentieth Century*, 19.

Taruskin's xenophobic-capitalist quilting point breaks down when faced with Messiaen. Messiaen's glosses have spared him the harshest criticisms of the European avant-garde within Anglophone musicology, in particular Taruskin's summary dismissal of European modernism. They have also acted as a smokescreen, detracting from the recognition of Messiaen's contribution to twentieth-century compositional technique. Messiaen's religious immunity to charges of fascist or Communist ideology is demonstrated in Taruskin's quizzical appraisal of the "Mode de valeurs."

Still, one may fairly wonder why Messiaen would have wished to court an impression of randomness; or (perhaps more to the point) why one would wish to plan such an apparently haphazard outcome in such meticulous detail. [...] In the case of Messiaen himself, answers are probably to be sought in his religious philosophy, in which the incomprehensible results of unknowable plans can symbolize the relationship of man and God.²⁷

Taruskin receives Messiaen's experiments with curiosity rather than vehemence. He explains that "[a]rcane structures, reminiscent of medieval speculations in sound, were an old story with Messiaen. They conveyed the 'charm of impossibilities'—sublime truths that we may apprehend only with our minds, not our senses." Writing about the "Sixty-four durations" from the *Livre d'orgue*, Taruskin asks: "Is a listener expected to distinguish a duration of 57 thirty-seconds from one of 56 or 58? Or is all the elaborate rational calculation a 'theological' ploy to boggle (yet somehow comfort) the mind?"²⁸

In associating Messiaen's experimental works with the charm of impossibilities, Taruskin is following Messiaen's lead. However, his interpretation of Messiaen's techniques as aiming at intelligible but unsensible truths is misleading. Messiaen associates his non-retrogradable rhythms and modes of limited transposition with the charm of impossibilities because they are intuited before they are understood. As Messiaen explains, although the listener will not intellectually understand that a given rhythm cannot be retrograded, they will nonetheless sense it and this sensation will "lead him progressively to that sort of *theological rainbow* which the musical language, of which we seek edification and theory, attempts to be."²⁹ Taruskin's explanation of the charm of impossibilities as "sublime truths that we may apprehend

²⁷ Taruskin, *Music in the Late Twentieth Century*, 26.

²⁸ Taruskin, *Music in the Late Twentieth Century*, 26.

²⁹ Messiaen, *The Technique of my Musical Language*, 20.

only with our minds, not our senses” is the exact inverse of Messiaen’s idea, which privileges the sensual experience.³⁰

Taruskin’s account of modernism is a discussion of competing aesthetic ideologies owing more to composers’ pronouncements than their music. If there is really an enemy of the free musical market or “natural” musical norms, it is not Boulez, but Messiaen. Messiaen’s technique of intervention must be disassociated from the idea of human limitation implied by the charm of impossibilities and be understood as a genuine exploration into new, difficult and affirmative musical possibilities.

If Taruskin’s account of modernism is overly sutured to ideological considerations, Harper-Scott conflates political and musical situations by identifying the French Revolution as the shared root of communism and musical modernism.³¹ Despite using the category of modernism as the anvil of his academic project,³² Harper-Scott readily accepts that “there is little agreement [...] as to what the canon of modernist music actually comprises, what its aims are, or even how it differs from its supposed predecessor, romanticism.”³³ If the category of modernism is little more than an academic punching-bag, why engage in a book-length argument about it? Harper-Scott is correct to criticise Taruskin for spinning myths about big, bad, totalitarian modernists. But why engage in Taruskin’s binary of modernism and neoclassicism when it hides a deeper inability to articulate the musical truths of the twentieth century?

Modernism makes only a short, dismissive appearance in the wide-ranging commentary of Badiou’s *The Century*.³⁴ The academic category of modernism functions with precisely the sort of “representational conception of legitimacy” to which, according to Badiou, the century’s artists and thinkers opposed their “passion for the real.”³⁵ As has been explained above, Badiou is particularly interested in the dual movement of destruction and subtraction by which the twentieth century’s

³⁰ Taruskin, *Music in the Late Twentieth Century*, 26.

³¹ Harper-Scott, *The Quilting Points*, 181.

³² See also J. P. E. Harper-Scott, *Edward Elgar, Modernist* (Cambridge: Cambridge University Press, 2006); ———, *The Quilting Points*.

³³ ———, *The Quilting Points*, xi.

³⁴ “The protocols of representational legitimization attempt to render continuous what is not, to give disparate sequences a single name, such as the ‘great proletarian leader’, or the ‘great founder of artistic modernity’—names that are actually borrowed from fictional objectivities.” Alain Badiou, *The Century*, trans. Alberto Toscano (Malden: Polity Press, 2007), 109.

³⁵ ———, *The Century*, 108.

passion for the real has been conducted. After breaking with “the formal consensus which, at any given moment, defines what merits the name of art,”³⁶ a new artistic form is proposed as a limited declaration not unlike an axiom in mathematics. Despite the potential for a history of twentieth-century composition based on the affirmation of axioms—as opposed to histories based on a capitalist narrative of totalitarian modernism and triumphant postmodernist reaction—there is very little music in *The Century*.³⁷ Webern alone receives a special mention for exemplifying the artistic process of subtraction:

Anton Webern’s musical oeuvre shines, diamond-like, at the heart of the century. It is the century’s most admirable distillate, in that extremely far implementation of the subtractive approach to the real it pushes [sic]. Elementary, though infinitely complex, suspended, albeit rich in surprises, almost inaudible, though prodigiously varied in its sonic effects, it offers to silence ornaments as sublime as they are impalpable.³⁸

Badiou’s reticence to use the term “modernism” may stem from the fact that, if to exist is to belong to an artistic, scientific, political or amorous world, then modernism as such does not exist.

In which musical history do Messiaen’s experimental techniques then participate? Harper-Scott takes the regulation of consonance and dissonance as the axiom of the Western art music tradition leading up to the radical innovations that fall under the label of musical modernism. He then uses Schenkerian analysis to demonstrate the modernism of such an unlikely figure as William Walton. Harper-Scott argues that we should

take seriously the idea that Schenkerian analysis, which explains in exquisite detail how the process of consonance/dissonance handling mediates between the substructure and superstructure, can be the basis for ideology critique: Schenkerian theory is essentially a theory of how the ideology of tonal music exercises its total control over every element of a piece.³⁹

³⁶ ———, *The Century*, 132.

³⁷ Badiou inscribed the copy of *The Century* given to the composer François Nicolas “the century without music ...” not because of a lack of music in the twentieth century, but because of its relative absence from the book. François Nicolas, “Badiou et la musique: une enquête de musicien,” in *Autour d’Alain Badiou*, 149.

³⁸ Badiou, *The Century*, 213n.

³⁹ Harper-Scott, *The Quilting Points*, 173n.

He holds out less hope for pitch-class set theory, which is at best a “scientific” (by which Harper-Scott means empiricist) approach unable to explain the relationship of the work of Walton or Elgar to that of their predecessors.⁴⁰ This may be the case in relation to a composer pushing the boundaries of tonality, but *Antagonisme* appears within a compositional frame where the binary of dissonance and consonance has already been obliterated. If there is one contradiction that does not appear in the piece, it is that between consonance and dissonance. Where the analyst encounters unknown post-tonal musical materials, it is only appropriate to refer to them in as descriptive, information-rich a manner as possible, thus, the language of pitch-class set theory. Such an analysis leads, as chapter seven shows, to a new understanding of the conflicting priorities of contour and ordinality.

The binary of modernism and postmodernism, or modernism and neoclassicism, functions exactly like that of consonance and dissonance, that is, as a false or “official” antagonism that hides the possibility of a genuinely new way of understanding music history. As Harper-Scott writes, a false antagonism

mystifies the true antagonism in the social order, which is a suppressed third term: a radical redrawing of the current situation, including its official antagonism. In tonal music we might say that the official antagonism—between consonant and dissonant configurations, which must ultimately and reassuringly be resolved into the “natural” state of the former—conceals the real antagonism identified by modernism, which is that ultimately in music of the tonal kind only one hegemonic order is deemed thinkable. Modernism creates a new possibility in overwriting the antagonism officially sanctioned by tonality.⁴¹

The emancipation of dissonance is not the only way to understand the musical revolutions of the twentieth century, which transformed the composer’s relationship not only to pitch organisation, but also to timbre, rhythm and the theme. To Dahlhaus, there is a complete and axiomatic break between dodecaphonism and serialism that opens up the possibility of musical forms based on duration, timbre and dynamics. He poses this argument against teleological histories of serialism that consider dodecaphonism an inferior proto-serialism. Dahlhaus considers it an error to think of the rhythms and pitches of dodecaphonic music as being in a state of “contradiction.” How could they be, if one considers the purpose of dodecaphonic music to be the reformation of the “‘grand’ autonomous instrumental forms under the conditions of

⁴⁰ ———, *The Quilting Points*, 245.

⁴¹ ———, *The Quilting Points*, 173.

atonality”?”⁴² Dahlhaus turns to Ernst Krenek’s statement about the musician’s “freedom to pose axioms” given the absence of natural or historical axioms of music.⁴³ To speak of a progression from dodecaphonic to serialist musical materials thus requires a retroactive determination of history as progressing to the point in question. Under an axiomatic view of musical composition, the aesthetic difference between serialist and aleatoric compositional techniques can no longer be framed as “objective” and “subjective,” or “restrictive” and “free,” but rather as a change between two subjectively-determined sets of compositional processes. As Nicolas argues, the difference between these two axiomatic systems can be considered in relation to the changing function of the theme.

In 1988, Nicolas delivered a seminar on serialism’s trajectory for the “Conférences du Perroquet.”⁴⁴ The seminar series was presented and disseminated by the newspaper *Le Perroquet*, which was edited by Badiou and the novelist Natacha Michel. While not strictly a political paper, the principal contributors, including Nicolas, Michel, Badiou and Sylvain Lazarus, were all members of the Union des Communistes de France marxiste-léniniste (UCF-ml). Appearing at the end of the “red years,” the paper includes music, literature and film reviews, literary criticism and philosophy, as well as political analysis. It was an organ in which militants could turn their pens to topics that had taken a back seat to politics for over a decade.

In “Traversée du sérialisme,” Nicolas divides the serialist trajectory into three moments forming a dialectic of writing and perception. An initial and extremely short period following Messiaen’s “Mode de valeurs” of 1949 was marked by the “simple generalisation of dodecaphonic technique” to the four characteristics of sound: pitch, duration, timbre/attack and dynamic.⁴⁵ The row, no matter which aspect of sound it is applied to, generally conforms to twelve elements, following the chromatic pitch scale. In this way, the unity of the series provides a form of coherence for the work. In this first period of serialism, musical listening is strictly considered “the perception of written structures.”⁴⁶

In the second serialist period greater consideration is given to the perception of different constituents of sound. For instance, Stockhausen recognises that the

⁴² Carl Dahlhaus, “Se détourner de la pensée du matériau ?,” in *Formel/Informel*, ed. Antonia Soulez et al. (Paris: L’Harmattan, 2010), 35.

⁴³ Krenek in ———, “Se détourner de la pensée du matériau ?,” 35.

⁴⁴ Nicolas, “Traversée du sérialisme.”

⁴⁵ ———, “Traversée du sérialisme.”

⁴⁶ ———, “Traversée du sérialisme.”

difference between two durations is not perceived in the same way as two pitches and begins working with various tempi.⁴⁷ Boulez publishes *Boulez on Music Today* in 1963, “the eminent example of the serialism of this epoch,” in which perception is considered “autonomous.”⁴⁸ The fetishisation of the number twelve also fades into the background at this point. The series no longer guarantees the coherence of the work, but only “the germ of a hierarchisation.”⁴⁹

The third period, beginning in the 1980s and conditioning Nicolas’ own musical situation, is that of “thematism without a theme.”⁵⁰ This period coincides with the rise of group composition and Boulez’s concepts of “envelope” and “signal.” The theme formed the structural conceit of tonal works. The theme persisted as a structural conceit in both Schoenberg’s dodecaphonism and in the first stage of serialism. The series-as-theme was then weakened as a unifying feature in the second period of serialism. In the third stage, large-scale principles of identity are once again introduced into serial practice.⁵¹

Antagonisme intervenes in the second period of serialism, appearing shortly after the publication of *Boulez on Music Today*. While the piece is based on tone rows, Darasse weakens the linear thematicism of the tone row with order-based permutations. The tone row is not used to unify the piece with its pitch contours and symmetries,⁵² but as one form of musical order among others. While there is no evidence as to Darasse’s thoughts on ordinal listening and serial listening, Messiaen describes order as a distinct form of musical organisation in his *Traité*. In developing his theory of ordinal listening, Messiaen performs a radical reading of Bachelard’s otherwise conservative writing on music.

Hearing Order

Bachelard was circumspect about the possibilities of musical invention. Messiaen’s use of Bachelard’s epistemology of music as a musical intellectual constitute a

⁴⁷ ———, “Traversée du sérialisme.”

⁴⁸ ———, “Traversée du sérialisme.”

⁴⁹ Boulez in ———, “Traversée du sérialisme.”

⁵⁰ Nicolas, “Traversée du sérialisme.”

⁵¹ ———, “Traversée du sérialisme.” Edward Campbell describes Boulez’s “envelope” as “the contour which is traced by a work’s dominant parameter. It involves fixing the parameters in such a way that one parameter is given primacy over the others in order to form the contour of a section of the work.” A “signal” is described as “‘areas’ of reference which facilitate the perceptible articulation of form” Edward Campbell, *Boulez, Music and Philosophy*, 89–90.

⁵² As Boulez instructs in Pierre Boulez, *Boulez on Music Today* (Cambridge: Harvard University Press, 1971), 70–83.

significant rereading of his work. Bachelard writes about music in a chapter of *La dialectique de la durée*. His treatment of music forms part of his larger project to develop a philosophy of the instant in reaction to Henri Bergson's philosophy of duration. Bergson found the interrelatedness of the notes of a melody a useful metaphor for the qualitative dimension of duration. In the first text in which he defines duration, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, Bergson presents three ways of intuiting the sixty seconds of a minute. One can intuit them all together, in which case one holds a static image of sixty seconds upon a line and loses their sense of succession. One can alternatively intuit each second as a single point on the line, without reference to what comes before or after. One is then subjected to a present without continuity.⁵³ Bergson proposes a third, "musical" way of intuiting the relationship of the sixty seconds.

Now if, finally, I retain the recollection of the preceding oscillation together with the image of the present oscillation, one of two things will happen. Either I shall set the two images side by side, and we then fall back on our first hypothesis, or I shall perceive the one in the other, each permeating the other and organizing themselves like the notes of a tune, so as to form what we shall call a continuous or qualitative multiplicity with no resemblance to number.⁵⁴

By such intuition experiments, Bergson gives the reader a sense of duration's qualitative, unmeasurable properties. Bachelard proposes instead an intuition of the instant, the model for which is poetry. To Bachelard, intuition is never given, but constructed. Poetry condenses the multiple pains and pleasures of lived, "horizontal" time into a more intense, "vertical" dimension. This is the case, Bachelard argues, even though poetry unfurls in lived, horizontal time: "[T]ime has many dimensions; time has a thickness. It appears continuous only under a certain thickness, due to the superimposition of several independent times."⁵⁵ Music, which temporally unfolds through diverse formal means, is thus an ideal metaphor for the way in which different senses of time are constructed.

⁵³ Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, trans. F. L. Pogson (London: George Allen and Unwin, 1910), 104.

⁵⁴ ———, *Time and Free Will*, 105.

⁵⁵ Gaston Bachelard, *La dialectique de la durée* (Paris: Presses universitaires de France, 1950), 92.

Messiaen's interest in Bergson has long been represented in scholarly work.⁵⁶ Bergson holds pride of place in the first chapter of the *Traité*. However, the chapter on Bergson must be understood as a prelude to Bachelard's competing philosophy of time, which is the subject of several pages in the *Traité*'s second chapter.⁵⁷ In his reading of Bachelard, Messiaen notes the affinity between the layers of Bachelard's vertical time and the musical "orders" of the nineteenth-century palaeographer Dom André Mocquereau.⁵⁸ Messiaen notes how Bachelard considers duration to be constructed from a dialectic of rhythm and pitch.⁵⁹ Mocquereau defined four contents that can form a dialectic with rhythm: pitch, duration, dynamics and "phonetics" or timbre.⁶⁰ From these four phenomena Mocquereau derives four rhythmic orders to which he adds a fifth: The "kinematic" order, by which he means the movement of a phrase, its *arsis* and *thesis*. Order can also be constructed, Messiaen argues, through composite means reminiscent of group composition,⁶¹ including density, tempo, polyrhythmy and the juxtaposition of different musical spaces such as different modes, scales and harmonic fields. Messiaen takes rhythm as the essential mechanism of order and so ultimately speaks of "rhythmic languages" rather than "orders," writing a list of fourteen such rhythmic languages.

1. *The rhythmic language of durations* (long and short durations, quantitative order).
2. *The rhythmic language of dynamics* (loud and weak sounds, crescendo and decrescendo, dynamic order).
3. *The rhythmic language of densities* (thickness, number of simultaneous sounds, belonging also to the dynamic order).
4. *The rhythmic language of pitches* (highness, lowness, changing of registers).
5. *The rhythmic language of timbres* (phonetic order).
6. *The rhythmic language of attacks* (legato, tenuto, all types of staccato, sforzando, etc., belongs also to the phonetic order).
7. *The language of rhythmic movement* (*arsis* and *thesis*, accentuation, cinematic movement).
8. *The rhythmic language of tempi* (rallentando and accelerando, differences of tempo, belongs also to the cinematic order. [...]).
9. *The rhythmic language of the interversions of durations* (all possible permutations or interversions: retrograde movement, from the centre to the extremes, from the extremes to the centre, and hundreds of millions of others.).

⁵⁶ Andrew Shenton, "Observations on Time in Olivier Messiaen's *Traité*," in *Olivier Messiaen: Music, Art and Literature*, ed. Christopher Dingle et al. (Aldershot: Ashgate, 2007).

⁵⁷ Messiaen, *Traité de rythme*, 44–47.

⁵⁸ ———, *Traité de rythme*, 44–47.

⁵⁹ Bachelard in ———, *Traité de rythme*, 46.

⁶⁰ Messiaen, *Traité de rythme*, 44.

⁶¹ For an excellent introduction to group composition, see Richard Toop, "Group Composition," in *Six Lectures from the Stockhausen Courses Kürten 2002* (Kürten: Stockhausen-Verlag, 2005): 1–36.

10. *Polyrhythmic language.*
11. *The rhythmic language of the resultant rhythms of polyrhythmy.*
12. *The rhythmic language of harmony.*
13. *The rhythmic language of musical places* (place = modality, tonality, polymodality, polytonality, atonality, dodecaphonic series, all other types of series, etc. Opposition or *mélange* of these different places, while assigning each one a particular duration).
14. *The rhythmic language of silence.*⁶²

Messiaen asserts the perceptibility of new musical materials beyond those of Bachelard and Mocquereau. To Bachelard, musical cognition is always a matter of recognition through the established frames of pitch and rhythm. Bachelard's notion of musical listening is thus one of retrospective justification. If a phrase appears to set up an expectation and fulfil it:

we shall not remember having expected it; we shall simply recognize that we ought to have expected it. Thus, what gives melody its light, free continuity is this wholly virtual expectation which is real only in retrospect, and just a risk to be run, a possibility.⁶³

Bachelard restricts this process of recognition within a limited view of human musical perception that excludes retrograde forms. These limits are accepted from another author, Lionel Landry.⁶⁴ Bachelard agrees with Landry that while one can perceive the inversion of a melody easily enough, the retrograde form is “something artificial, scholarly, perceptible only upon reading.”⁶⁵ To Landry music, like time, only moves in one direction and to accept the retrograde form is to accept an abstract, spatialised conception of the melody rather than one based in recognition. Messiaen on the other hand accepts retrogradation, insisting that “it is one of the measures of a musician-rhythmician to be able to juggle with the different senses of duration!”⁶⁶ This seemingly innocuous phrase requires some unpacking. By “senses of duration,” Messiaen refers to the different ways in which his musical languages construct duration through the process of recognition. The verb “to juggle” [*jongler*] implies mixing up or reordering and it is precisely as a reordering of the elements of a rhythmic language that Messiaen defends the retrograde form. As chapter seven shows, Messiaen accepts the retrograde form not as a transformation of an abstract spatialisation of a melody, but as just one of hundreds of millions of possible

⁶² Messiaen, *Traité de rythme*, 47.

⁶³ Bachelard in Wiskus, “Thought Time and Musical Time,” 185.

⁶⁴ Lionel Landry, *La sensibilité musicale : ses éléments, sa formation* (Paris: F. Alcan, 1930).

⁶⁵ Bachelard, *La dialectique de la durée*, 119.

⁶⁶ Messiaen, *Traité de rythme*, 45.

permutations of a musical order. It is suggestive that Messiaen did not retain Mocquereau's nomenclature of "musical orders." Perhaps Messiaen wanted to reserve the concept of order for his ninth musical language.

The Two Rows of *Antagonisme*

Darasse uses two distinct rows in *Antagonisme*. Chapter seven will show how both rows are constructed through order-based permutations of a chromatic row. This analysis will explain Darasse's unconventional manner of calculating the transpositions, retrogrades and interversions of his rows. By changing the sequence of operations conventionally used in establishing a serial matrix, Darasse disrupts the order inherent in the labelling of tone rows.

Darasse leaves little trace of the two rows in his sketches. In the draft of *Antagonisme*, he marks some passages with arabic and roman numerals that can be related to nearby row forms once they have been reverse-engineered. His labels for the remaining rows may then be deduced from these scattered markings. In his first row, which shall be referred to as row A, Darasse uses arabic numerals to designate prime rows and their retrogrades and roman numerals to designate inversions and their retrogrades. He uses a right-to-left arrow to indicate retrogradation. Here Darasse's rows are given in the form of Milton Babbitt's row matrices, from which can be read all 48 prime, retrograde and inverted forms of the row and their transpositions (fig. 6). The prime form of the row is read from left to right and its transpositions is indicated by its leftmost pitch class. Its retrograde is read from right to left. Its transposition is indicated by the leftmost pitch class. Interversions are read from top to bottom and their transpositions are indicated by the topmost pitch class. The retrograde of an interversion is read from bottom to top and its transposition is indicated by the topmost pitch class. Darasse's labels are included in the outermost columns and rows of the matrix. Throughout this thesis, references to row transformations will be made using standard pitch-class nomenclature, with row A and row B distinguished beforehand. Darasse's label for the row is then provided after a comma. Thus, A:RI₄, III← indicates the retrograde of the inversion of the fourth transposition of row A.

		III	IX	VIII	IV	X	VII	V	XI	XII	VI	I	II		
	A:	I ₄	I ₁₀	I ₉	I ₅	I ₁₁	I ₈	I ₆	I ₀	I ₁	I ₇	I ₂	I ₃		
1	P ₄	4	10	9	5	11	8	6	0	1	7	2	3	R ₄	1 ←
7	P ₁₀	10	4	3	11	5	2	0	6	7	1	8	9	R ₁₀	7 ←
8	P ₁₁	11	5	4	0	6	3	1	7	8	2	9	10	R ₁₁	8 ←
12	P ₃	3	9	8	4	10	7	5	11	0	6	1	2	R ₃	12 ←
6	P ₉	9	3	2	10	4	1	11	5	6	0	7	8	R ₉	6 ←
9	P ₀	0	6	5	1	7	4	2	8	9	3	10	11	R ₀	9 ←
11	P ₂	2	8	7	3	9	6	4	10	11	5	0	1	R ₂	11 ←
5	P ₈	8	2	1	9	3	0	10	4	5	11	6	7	R ₈	5 ←
4	P ₇	7	1	0	8	2	11	9	3	4	10	5	6	R ₇	4 ←
10	P ₁	1	7	6	2	8	5	3	9	10	4	11	0	R ₁	10 ←
3	P ₆	6	0	11	7	1	10	8	2	3	9	4	5	R ₆	3 ←
2	P ₅	5	11	10	6	0	9	7	1	2	8	3	4	R ₅	2 ←
		RI ₄	RI ₁₀	RI ₉	RI ₅	RI ₁₁	RI ₈	RI ₆	RI ₀	RI ₁	RI ₇	RI ₂	RI ₃		
		III	IX	VIII	IV	X	VII	V	XI	XII	VI	I	II		
		←	←	←	←	←	←	←	←	←	←	←	←		

Figure 6: Matrix of tone row A of *Antagonisme*. Darasse's own labels are given in the outermost columns and rows.

Instead of building the above matrix around T₀, which results in the characteristic diagonal row of 0s, I have centred the above matrix around what Darasse considered the prime form of his row, E, or 4. In keeping with serial compositions outside the influence of American pitch class set theory, Darasse numbering of pitch classes begins on 1, not 0. Bearing this in mind, one is struck by the difference between Darasse's label for his first row, 1, and his label for its inversion according to the conventional method, III. This disjuncture is the result of Darasse's idiosyncratic method of calculating his rows. Darasse calculates his retrograde forms in the conventional fashion, by taking the prime row in reverse order. Instead of calculating the inversion of the prime form and then reversing the inversion to find the retrograde inversion, Darasse calculates the retrograde inversions by inverting the retrograde rows. He calculates the inverted rows last by taking the

retrograde of the retrograde inversions. Consequently, the first pitch of a prime row and its inversion do not match in Darasse's labelling system. Since Darasse's idiosyncratic labeling does not disrupt the rows as they are heard, what could he have intended? The answer may lie in the notion of order. By disrupting the conventions of labeling, Darasse disrupts the order implicit in a matrix. But was this really an intentional act? Darasse's use of the matrix in the score suggests that it is intentionally reordered.

The piece's opening—according to the rewritten opening episode—presents a musico-epistemological puzzle using retrogradation as a reordering mechanism. Darasse teases the listener (or at least the analyst) by presenting as the very first row in the piece not the prime form, nor its retrograde, but the retrograde of the inversion of the prime form, or $A:RI_2, I\leftarrow$. As will be discussed in more detail in chapter seven, episode A is in fact a retrograde of episode D. By using a retrograde row as the first row in the piece, Darasse suggests that episode A is a derivative of episode D rather than the other way around. The first row heard in the piece is then the last row of the “prime” episode in retrograde.

EXAMPLE 2: Xavier Darasse, *Antagonisme*, episode Ab, bars 1–2.

Ab Moderato $\text{♩} = 138$

$A:RI_2, I\leftarrow$ 8w-----1

Piano

p

p

8w-----

If the matrix of row A is reordered by prioritising retrogradation, row B is reordered by prioritising inversion. Darasse labels the rows in inverse order to their first pitch classes, starting on 4, I. As such, the row beginning on 3 is not labelled XII, but II. The row beginning on 2 is labeled III, and so on.

		inv II	inv I	inv VII	inv XII	inv X	inv XI	inv VIII	inv VI	inv IX	inv IV	inv V	inv III		
	B:	I ₄	I ₅	I ₁₁	I ₆	I ₈	I ₇	I ₁₀	I ₀	I ₉	I ₂	I ₁	I ₃		
I	P ₄	4	5	11	6	8	7	10	0	9	2	1	3	R ₄	R1
II	P ₃	3	4	10	5	7	6	9	11	8	1	0	2	R ₃	R2
VIII	P ₉	9	10	4	11	1	0	3	5	2	7	6	8	R ₉	R8
III	P ₂	2	3	9	4	6	5	8	10	7	0	11	1	R ₂	R3
V	P ₀	0	1	7	2	4	3	6	8	5	10	9	11	R ₀	R5
IV	P ₁	1	2	8	3	5	4	7	9	6	11	10	0	R ₁	R4
VII	P ₁₀	10	11	5	0	2	1	4	6	3	8	7	9	R ₁₀	R7
IX	P ₈	8	9	3	10	0	11	2	4	1	6	5	7	R ₈	R9
VI	P ₁₁	11	0	6	1	3	2	5	7	4	9	8	10	R ₁₁	R6
XI	P ₆	6	7	1	8	10	9	0	2	11	4	3	5	R ₆	R11
X	P ₇	7	8	2	9	11	10	1	3	0	5	4	6	R ₇	R10
XII	P ₅	5	6	0	7	9	8	11	1	10	3	2	4	R ₅	R12
		RI ₄	RI ₅	RI ₁₁	RI ₆	RI ₈	RI ₇	RI ₁₀	RI ₀	RI ₉	RI ₂	RI ₁	RI ₃		

Figure 7: Matrix of tone row B of *Antagonisme*. Darasse's labels are given in the outermost columns and rows.

Darasse further disrupts the ordering of the matrix by labelling his inversions a semitone higher than their prime forms. Given the rarity of Darasse's use of inversions of row B, as well as the varied labels he uses for them ("invIII" is written with an arabic numeral in the score, and "VI" is written without the "inv" prefix), it is possible to put this down to a careless calculation error or a haphazard attempt at disrupting the order of his series. As with row A, Darasse's inverted numbering of row B does not disrupt the structure of the rows as they are heard. Instead, Darasse seeks to disrupt the order of the rows implied by their progressive numbering. Darasse's reordering of row B is also highlighted in the row's first appearance. Darasse first states row B in bar 2, immediately after the first statement of row A. Instead of presenting the first row of his matrix, he presents the second transposition, labelled R12.

One could argue that Darasse's reordered matrices do nothing to alter the intervallic content of his tone rows. Darasse's labels are just different names for the same tone rows calculated a different way. However, Darasse highlighted his reordering of the rows by beginning the work with statements of rows A and B that occupy telling places in his serial matrices. Order within the row matrix may be more important to Darasse than intervallic content. As will be explained further in chapter seven, Darasse's serial matrices are just one way in which he confronts serial processes with order-based permutations and so affirms order as a musical parameter.

Conclusion

Messiaen's awkward place in histories of musical modernism ought to prompt scholars to re-evaluate both the notion of modernism and Messiaen's music. As the discussion of Taruskin and Harper-Scott's theories of musical modernism has shown, accounts of modernism overly attached to ideological or aesthetic contexts risk misrepresenting the musical situation under discussion. Further research is needed into Messiaen's contribution to twentieth-century compositional technique, in particular his use of order as a musical parameter. Darasse's reorganised serial matrices offer the tantalising suggestion that not only did Messiaen and Darasse practice order-based permutations, they shared a fundamental understanding about the difference between serial and ordinal priorities in music.

5. Structuralists Versus Serialists

Though the hegemony of serial composition at Darmstadt was fading by the early 1960s, serialism was becoming an issue of public debate. Boulez published his Darmstadt lectures on serial composition as *Boulez on Music Today* in 1963, provoking a searing critique by Lévi-Strauss in the “Overture” of his book *The Raw and the Cooked*. Like Badiou, Lévi-Strauss was a musical amateur and a Wagner enthusiast. Unlike Badiou, Lévi-Strauss’ theory of music does not concern musical autonomy, but the limitations of human perception and communication. This chapter begins by explaining the text of *Antagonisme* as a rite of passage in Badiou’s conversion from Sartre’s existentialism to Althusser’s Marxist structuralism.

The chapter then shows how two lines of Lévi-Strauss’ thought on music are represented in *Antagonisme*’s text and music. The two notions of music appear at either end of Lévi-Strauss’ analyses of interrelated myths, *Mythologiques*. In 1964, at the beginning of the series, Lévi-Strauss likens music to a language bound by a restricted view of the limits of human musical perception. This line of thinking, which Lévi-Strauss uses to criticise serialism, is parodied in the ironic relationship between sound and sense in *Antagonisme*’s text and the relationship between pitch and rhythm in Darasse’s score.

The chapter argues in passing that, in response to the structuralists’ criticisms, defenders of serialism have tacitly accepted criticisms of first-stage, pointillist serialism to defend later techniques such as group composition. To the contrary, I point toward the care with which composers constructed the intervallic contour of their rows to provide recognisable thematic content for their work. I argue that Messiaen was overlooked in these debates once again. Messiaen’s use of order as a musical parameter broke more radically with the tenets of structuralism than did serial organisation.

Lévi-Strauss’ second theory of music appears in *The Naked Man*, the last book in the *Mythologiques* series published in 1971. Through a reading of one of Wagner’s music dramas, Lévi-Strauss speculates upon music’s interpretative function.¹ Darasse’s use of word-painting conforms to the interpretative view of musical

¹ To this line of thinking can be attributed the invaluable musicological tool of paradigmatic analysis. See Kofi Agawu, *Music as Discourse: Semiotic Adventures in Romantic Music* (Oxford: Oxford University Press, 2009); Jean-Jacques Nattiez, *Music and Discourse*.

structure. However, by using interversion to produce his evocative textures, Darasse radically contradicts Lévi-Strauss' first, conservative view of music and affirms the composer's right to explore new musical materials. The chapter argues that understanding the relationship between Badiou's text and Darasse's score requires more than a reading of Darasse's word-painting and requires a consideration of *Antagonisme's* confrontation of serial and ordinal listening.

Serialism and the Structuralist Turn

The rise of structuralism in France in the 1950s and 1960s coincided with Sartre's fall as the nation's intellectual star.² Badiou's intellectual transition from his Sartrean novels to his Althusserian articles thus had to pass through the structuralism of Lévi-Strauss. Badiou studied at the ENS between 1956 and 1961,³ after which he adopted a teaching position in Reims. The structural wave did not hit the ENS until after Badiou had left the institution. Althusser's landmark structuralist-Marxist seminars began in 1961 and Lacan's seminar moved to rue the d'Ulm campus of the ENS in 1964.⁴ Badiou describes the intellectual atmosphere of the ENS during his years there as

a dispersed, hesitant progression—investigations that were tentatively oriented in the direction of what was starting to happen, structuralism, whose foundations were in fact laid down in the readings we were doing at the time, in the discussions we were having, in particular the rather delayed, retrospective discovery of Lévi-Strauss.⁵

The students read Lévi-Strauss' *Elementary Structures of Kinship* in 1957,⁶ almost a decade after it was written. Badiou and his colleagues Emmanuel Terray and Pierre Verstraeten saw their own awakening to the human sciences in Sartre's engagement with Lévi-Strauss in the *Critique of Dialectical Reason*.⁷ Appearing in 1960, the book led to heated discussions among the students that culminated in an invitation for Sartre to deliver a lecture at the ENS in April 1961. The lecture turned into an

² Dosse, *The History of Structuralism*, trans. Deborah Glassman, 2 vols., vol. 1 (Minneapolis: University of Minnesota Press, 1997), 3.

³ Hallward and Badiou, "Theory from Structure to Subject," 274.

⁴ Peter Hallward, "Introduction: Theoretical Training," in *Concept and Form*, vol. 1, 37; Tho and Bianco, *Badiou and the Philosophers*, xxiii.

⁵ Hallward and Badiou, "Theory from Structure to Subject," 274.

⁶ Tho and Bianco, *Badiou and the Philosophers*, xvii; Dosse, *The History of Structuralism*, 19.

⁷ Hallward and Badiou, "Theory from Structure to Subject," 275.

“oratory joust” between Sartre and Althusser with the latter, by all accounts, coming out the victor.⁸

The list of attendees reads like a who’s who of 1960s French philosophy: Althusser, Georges Canguilhem, Jean Hyppolite and Maurice Merleau-Ponty, as well as Badiou, Terray, Verstraeten, Roger Estabiet, Yves Duroux, Etienne Balibar, Pierre Macherey and Jacques Rancière.⁹ Sartre did not directly reply to questions, but nodded mutely in response.¹⁰ Regnault describes Sartre as “somewhat isolated in a world which was moving away from him.”¹¹ To Rancière “that evening marked the beginning of Sartre’s movement out of our horizon,” and was “like a burial” or “the swan song of existentialism.”¹²

The Conservatoire de Paris was not a world apart from the structuralist turn. During the 1960s, Mâche grappled with the consequences of structural linguistics in music:

I was persuaded by the study of phonology, that is to say of functional phonetics, a purely “-etic” approach, according to the terminology of J.-J. Nattiez. Understand by that an observation of sonorous traits that ignores the importance of their rapports with other traits. I had been led to dump, in January 1963, a project that, according to a different way that, in an “-emic” way, that is to say a functional way, tried to apply to the analysis of electroacoustic musics and other methods inspired by structuralism, but in taking account of musical contexts to determine the pertinent unities.¹³

Then there was, of course, Badiou’s text for *Antagonisme* parodying Lévi-Strauss’ criticisms of serialism. Firstly, the poet’s text reflects the assumption that music is articulated on two levels in the same way that structural linguistics conceives of a language. Secondly, the text reflects Lévi-Strauss’ association of these levels of articulation with nature and culture.

If rehashing the old controversy around music and structuralism appears redundant after such excellent recent exegeses by Edward Campbell, Jonathan Goldman and Jean-Jacques Nattiez,¹⁴ it is necessary because of a tendency in the literature to simplify the differences between commentators and the need to introduce

⁸ Dosse, *The History of Structuralism*, 4.

⁹ Tho and Bianco, *Badiou and the Philosophers*, xxv.

¹⁰ ———, *Badiou and the Philosophers*, xxv.

¹¹ Regnault in Hallward and Peden, eds., *Concept and Form*, vol. 2, 205.

¹² Rancière in Hallward and Peden, eds., *Concept and Form*, vol. 2, 263.

¹³ François-Bernard Mâche, *Musique au singulier* (Paris: Odile Jacob, 2001), 22.

¹⁴ Goldman, *The Musical Language of Pierre Boulez*; Campbell, *Boulez, Music and Philosophy*; Jean-Jacques Nattiez, *Lévi-Strauss musicien* (Paris: Actes Sud, 2008).

into this discussion alternative forms of structuralism from mathematics and Marxism that bore, if only lightly upon the debate around Boulez's music, heavily upon Badiou at the time of writing *Antagonisme*'s text.

A structural analysis produces a model of a given object, as described in characteristically-clear fashion by Jean-Jacques Nattiez:

By *structure* I will understand here the *model* constructed to take account of the object conceived as a *system* of which all the elements are *defined* according to a *procedure* as explicit as possible, and which are *described* by means of *traits* that define their *differential rapports* of opposition and contrast.¹⁵

Ferdinand de Saussure's original linguistic pairings of "signifier" and "signified," "*parole*" and "*langue*," and "synchronic" and "diachronic" provided a common language for diverse investigations.¹⁶ Saussure developed structural analysis as an alternative to the empiricism, historicism and psychology of previous disciplines of linguistics. He defines "signifier" as a sound-image with no inherent meaning. Its sole quality is that it is different from other sound-images. A "signifier" is arbitrarily paired with a concept, or "signified," in a "sign."¹⁷ Saussure then considers the combination and use of signs in language as divided between "*langue*," the abstract code or "principle of classification" of language and "*parole*," its particular instantiations in social usage.¹⁸ Structural linguistics distinguished itself from earlier form of linguistics by its emphasis on *langue*, or code, over *parole*, or usage.

From basic units, languages are constructed through cumulative levels of "articulation." Here "articulation" is understood in the sense of "link" or "joint." Within linguistics, André Martinet developed the term in the book *Elements of General Linguistics*. The first articulation is the combination of the smallest meaningful units of a language, usually words, into phrases.¹⁹ For example, "I feel hungry" is comprised by the words "I," "feel," and "hungry." None of these units are unique to the expression of my being hungry and each may be used in a variety of different circumstances to express different states of affairs. Each of these smallest

¹⁵ ———, *Lévi-Strauss musicien*, 30.

¹⁶ Ferdinand de Saussure, *Course in General Linguistics*, trans. Wade Baskin (New York: The Philosophical Library, 1959).

¹⁷ ———, *Course in General Linguistics*, 66.

¹⁸ ———, *Course in General Linguistics*, 9.

¹⁹ André Martinet, *Elements of Structural Linguistics*, trans. Elisabeth Palmer (London: Faber and Faber, 1964), 23.

meaningful units may in turn be divided into smaller units that do not carry meaning. One can divide “hungry” into six constituent parts (in the International Phonetic Alphabet: /hʌŋɡrɪ/) without any of these smaller units carrying subsidiary meanings that could be combined to form the word “hungry.” The articulation of phonemes into words is called the “second articulation.”²⁰ The upshot of language’s double articulation is its incredible economy of material. Through the combination of a very limited number of units at the second level of articulation a great number of words may be produced. These words may then be combined in the first level of articulation to express an almost limitless variety of situations and states of affairs.

Lévi-Strauss and Ruwet criticised the serialism of Stockhausen and Boulez for lacking a first level of articulation. In doing so, they attacked the already out-dated “pointillist” style of serialism found in Nicolas’ first stage of serialism. Where the composer Henri Pousseur praised the richness of noise over the restricted sonic world of traditional musics,²¹ Ruwet responds that “it is as though he said that he prefers the richness of infantile babble, or all the possible and imaginable sounds that may be pronounced by a human organ, to the poverty of the phonological systems of French or Chinese”²² Ruwet found that the serialised dynamics in Stockhausen’s *Klavierstück I*, including passages where one must distinguish between *fff* and *ff* in a passage of demi-semiquavers treated with nested irrational rhythms, too subtle. Ruwet heard only “a sort of undifferentiated flurry.”²³ To Ruwet, for all their complexity, serial works presented the listener with an overly homogenous surface.²⁴

Ruwet stops short of declaring the impossibility of serial music’s expressivity on the basis of the limits of human perception. He blames the transparency and brevity of many of Webern’s works on the difficulty of producing distinguishable units from serial procedures while accepting that they may yet be successful compositions from a structural-linguistic point of view. Ruwet’s intention was not “to condemn the serial system in the name of *natural laws*, but to recognise that its

²⁰ ———, *Elements of Structural Linguistics*, 24.

²¹ Ruwet refers specifically to Henri Pousseur, “Musique électronique, musique sérielle,” *Cahiers Musicaux* 12 (1957).

²² Nicolas Ruwet, “Contradictions du langage sériel,” *Revue belge de Musicologie* 13, no. 1 (1959): 85.

²³ ———, “Contradictions du langage sériel,” 94.

²⁴ ———, “Contradictions du langage sériel,” 83.

structural possibilities are limited, and that they have perhaps already been exhausted by Webern, and in certain exceptional works, such as the *Marteau sans maître*.²⁵

Because they lack a discrete, shared code, serial music and *musique concrète* is restricted to engaging in *parole*, or ephemeral speech-acts, over *langue*, or a shared code. Ruwet finds composers' uses of the term "*bloc sonore*" or "sound block," instead of "chord," symptomatic of their preference for the instance over the code. To Ruwet these are two discrete categories, with the notion of "sound block" belonging to *parole* and "chord," with its functional-harmonic connotations, to *langue*.²⁶

Reversing Martinet's nomenclature of "first" and "second" articulations, Lévi-Strauss also argued that serialism disregarded the tonal relationships that articulate pitches at his "first level of articulation." The lack of a first level of articulation (Martinet's second level) deprived serialism of the "general structures whose universality allows the encoding and decoding of individual messages."²⁷ Lévi-Strauss justified his criticism by arguing that serialism ignored the natural and cultural origins of the first and second levels of articulation respectively.

The Problem with Groupthink

Commentators defended serial compositions from Ruwet and Lévi-Strauss' attacks by showing how serial music was expressive when higher levels of organisation were heard. They pointed to how pointillist serialism gave way to group composition, as in Stockhausen's *Klavierstück I* and *Zeitmasze*, which played upon the shared faculties of human perception of timbre, dynamics and rhythm over longer time spans.

Must one accept that note-by-note, pointillist serial organisation exceeds the bounds of perception to defend the serialist movement as a whole? There are few who do not. Goldman has argued that Boulez's use of variations in tempi to produce large-scale antiphonal forms constitutes a structuralist form of organisation. He also shows how Boulez uses melodic profiles, dynamics and performance techniques to delineate smaller-scale figures.²⁸ Pointing to the larger-scale contrasts of Boulez's work, Goldman defends Boulez's compositions as structural "inasmuch as any structuralist project [...] involves the construction of a model [...] composed of elements set up in

²⁵ My emphasis. ———, "Contradictions du langage sériel," 97.

²⁶ ———, "Contradictions du langage sériel," 87.

²⁷ Claude Lévi-Strauss, *The Raw and the Cooked*, trans. John Weightman and Doreen Weightman (Chicago: University of Chicago Press, 1969), 24.

²⁸ Goldman, *The Musical Language of Pierre Boulez*, 85.

binary oppositions.”²⁹ Recognising Ruwet’s concerns about the seeming homogeneity of pointillist serial compositions, Pousseur introduces the group as a way to provide greater contrast within the moments of a serial composition. “A group,” writes Pousseur, “is characterised by global qualities, common to all of its elements, and which distinguishes them “en bloc” from neighbouring groups.”³⁰ This allows for the exploration of groups as a large-scale formal device capable of easy apprehension.³¹ Pousseur pointed out that Ruwet’s concerns about the opacity of pointillist serialism did not apply to the examples he used to illustrate his argument. The filigree from Stockhausen’s *Klavierstück I* was in fact a group differentiated from neighbouring groups by its general dynamic and speed.³² Deliège, who was intimately involved in the European post-war avant-garde, observed that “[w]ithout doubt, we were wrong to refuse to let ourselves be involved in the Lévi-Straussian philosophical project.”³³ But instead of language, Deliège argued that the strictest serial works should be considered products of programming and informatics.³⁴

The above defences of serialism deny the series as an organising principle. Affirming the novelty of serialism involves affirming its destructive mode of negation by admitting that cutting the ties between the chromatic scale and tonal harmony was an essential step in the emergence of something new. Lévi-Strauss was, after all, able to quote Boulez as saying that “there is no longer any preconceived scale or preconceived forms—that is, general structures into which a particular variety of musical thought can be inserted.”³⁵ Boulez claims that he lifted the series of *Structures I* from Messiaen’s “Mode de valeurs” so that he would compose with material “for whose invention I deliberately rejected all responsibility.”³⁶ The piece was only an experiment in “how far automatism in musical relationships would go

²⁹ Jonathan Goldman, “Structuralists Contra Serialists? Claude Lévi-Strauss and Pierre Boulez on Avant-Garde Music,” *Intersections* 31, no. 1 (2011): 90.

³⁰ Henri Pousseur, “Forme et pratique musicales,” *Revue belge de Musicologie* 13, no. 1/4 (1959): 105.

³¹ ———, “Forme et pratique musicales,” 105.

³² ———, “Forme et pratique musicales,” 105.

³³ Célestin Deliège, “A Period of Confrontation: The Post-Webern Years,” in *Contemporary Music : Theoretical and Philosophical Perspectives*, ed. Irène Deliège et al. (Burlington: Ashgate, 2009), 161.

³⁴ ———, “A Period of Confrontation,” 162. Deliège expands on this point in ———, *Invention musicale et idéologies* 2, 166: “The dodecaphonic series, is it not the first extremely rudimentary artificial language to be musically conceived? In the first collection of *Structures pour deux pianos* by Boulez—and principally in the first piece addressed above—do we not see such a language developed through a sort of algorithm?”

³⁵ Boulez in Lévi-Strauss, *The Raw and the Cooked*, 24.

³⁶ Pierre Boulez and Célestin Deliège, *Pierre Boulez: Conversations with Célestin Deliège* (London: Eulenberg Books, 1976), 55.

[...]’.³⁷ To use Badiou’s terms, *Structures Ia* belongs purely to the destructive mode of the subject of serialism.

On the other hand, one must consider the various affirmative or subtractive strategies composers have employed to assert expressive control over their serial compositional tools. Serial and dodecaphonic composers paid great attention to the intervallic properties of their series. In his defense of the serialists, Deliège reminds the reader “that certain Webernian series comprise only two or three intervals, that others are divided into symmetrical, interdependent parts in a relation of inversion or retrogradation.”³⁸ There are certainly hierarchies at work in the pitch organisation of some serial works, but they are to be found on multiple levels of articulation, not just in a more or less physiologically-determined “infra-code.”³⁹

Nature and Culture

Lévi-Strauss’ theory of music’s double articulation is a binary of nature and culture that was not readily accepted by the music community. First Deliège, then Pousseur and Nattiez took issue with the forced dichotomy of nature and culture. Lévi-Strauss’ first articulation of music is the musical scale.⁴⁰ He argues that musical scales do not occur in nature, but are produced by cultures. The second level of articulation appears in nature as the articulation of scale elements in perceived time, for instance in melodies, rhythms, sonata forms and variations.⁴¹ Lévi-Strauss makes a comparison with painting, whose levels of articulation appear to have inverse origins. The colours of painting are a first level of articulation that is given in nature and only replicated by the painter. Pitches, where they do appear in nature, only appear in an “accidental” and “unstable” way.⁴²

Pousseur complicates the dichotomy by arguing that the spectrum of sonic frequencies may be considered just as much a “natural” palette as that of light.⁴³

³⁷ ———, *Pierre Boulez: Conversations with Célestin Deliège*, 55.

³⁸ Célestin Deliège, “Sur quelques motifs de l’ouverture aux Mythologiques,” *L’Arc* 26 (1965): 75. Deliège’s acute response to Lévi-Strauss appears in an issue of *L’Arc* dedicated to the anthropologist in 1965. It mysteriously disappears from the reprint of the journal in 1968. Thank you to Irène Deliège for helping me access a transcript of the original article. The article will be reprinted in the forthcoming third volume of Célestin Deliège’s *Invention musicale et ideologies*.

³⁹ ———, “Sur quelques motifs,” 73.

⁴⁰ Lévi-Strauss, *The Raw and the Cooked*, 22.

⁴¹ ———, *The Raw and the Cooked*, 16.

⁴² ———, *The Raw and the Cooked*, 19.

⁴³ Henri Pousseur, *Fragments théoriques I : sur la musique expérimentale* (Brussels: Éditions de l’Institut de Sociologie de l’Université Libre de Bruxelles 1970), 21–3.

Conversely, Nattiez and Deliège argue that colours are selected for artistic use by cultures in much the same way as pitches from their appearance in nature.⁴⁴ Deliège asserted that “[i]f man can find, truly, in natural objects an extensive scale of colours, it is no less true that to use them he is obliged to recompose them.”⁴⁵ Lévi-Strauss maintains that the scale is distinct from the continuum of pitch because it consists of hierarchies, such as Rameau’s classification of scale degrees such as “tonic,” “dominant,” and “subdominant.”⁴⁶ But then, as Nattiez argues, one would have to account for the richness and variety of scales found in non-Western musics, which are almost all tempered in some regard.⁴⁷

Lévi-Strauss’ “cultural” level is not divorced from natural limits either. While the relations of the first articulation are not natural, they exist within certain physiological constraints:

It is nevertheless true that, like any phonological system, all modal or tonal (or even polytonal or atonal) systems depend on physical and physiological properties, selecting some from among the infinite number no doubt available, and exploiting the contrasts and combinations of which they are capable in order to evolve a code that serves to distinguish different meanings. Music, then, just as much as painting, supposes a natural organization of sense experience; but it does not necessarily accept this organization passively.⁴⁸

Because of their dependence upon physiological constraints, Lévi-Strauss’ theory of music proscribes innovations arising from music’s formal autonomy. He describes serialism, with its formal experiments, as

a sailless ship, driven out to sea by its captain, who has grown tired of its being used only as a pontoon, and who is privately convinced that by subjecting life aboard to the rules of an elaborate protocol, he will prevent the crew from thinking nostalgically either of their home port or of their ultimate destination [...].⁴⁹

The poet’s “double image of music” in *Antagonisme* reflects Lévi-Strauss’ division between nature and culture. The poet describes a double-articulated image of music and uses a double-articulated poetic system to do so. In the Foreword, the poet

⁴⁴ Nattiez, *Lévi-Strauss musicien*, 107.

⁴⁵ Deliège, “Sur quelques motifs,” 70.

⁴⁶ Lévi-Strauss, *The Raw and the Cooked*, 16–17.

⁴⁷ Nattiez, *Lévi-Strauss musicien*, 129.

⁴⁸ Lévi-Strauss, *The Raw and the Cooked*, 21–2.

⁴⁹ ———, *The Raw and the Cooked*, 25.

describes how the text is divided into two vocabularies. The first indicates “order” and is characterised by hard “t,” “s” and “p” consonants: “*table tutélaire*” [tutelary table], “*fondation sans trace*” [foundation without trace], “*pierre exacte*” [exact stone] and “*juridiction*” [jurisdiction]. The foundational vocabulary represents what Lévi-Strauss would call the elementary cultural “grid.”⁵⁰ The “ornamental” vocabulary is characterised by soft, “l” and “v” sounds: “*labiales pourrissantes*” [rotting labials], “*voile*” [sail], “*ville*” [city], “*perte scintillante*” [scintillating loss] and “*lierre rouge*” [red ivy]. The ornamental vocabulary represents the horizontal grid of selection through which fundamental elements are deployed in “natural” time. Badiou writes that a third vocabulary including only the phrase “*affleurement des signes*” [outcrop of signs] represents the synthesis of the foundational and ornamental vocabularies.⁵¹ Badiou’s plan for the deployment of the three vocabularies throughout the work is summarised in appendix one. The final product does not provide such a clear-cut dialectic of ornamental and foundational vocabularies because of the ironic relationship between the sense and sound of the text.

Irony in Sense and Sound, Pitch and Rhythm

Irony functions independently within the text and the music of *Antagonisme* to frustrate a simple semiological reading of the two. Irony may be found between the meaning and sound of the text. In episode F, the poet enjoins the listener to “see the city.”

⁵⁰ ———, *The Raw and the Cooked*, 27.

⁵¹ See the table in appendix one.

Vois la ville. C'était notre royaume selon rythmes unique timbre, intensités. Nous l'inventons pour la perdre. Vois la ville infestée de jardins, toute pierre oubliée, ruisselant seule sous l'infection du jour ! Des voiles haut tendues, malades très haut violettes par dessus l'effondrement rouge des lierres, et toute la ville enfouie par tréfonds végétaux, scintillations, et perte pour parole (**très légère hésitation**) de son luxe, nous avons omis de nommer même ses fondations, ou ses racines, nous en avons perdu jusqu'à la trace et franchissions indéfiniment un espace poussé par crucifères.

See the city. It was our kingdom according to rhythms unique timbre, intensities. We invented it in order to lose it. See the city infested with gardens, every stone forgotten, flowing alone under the infection of the day! The sails stretched high, sickly very high violets above the red collapse of ivies, and all the city buried by the vegetal depths, glistenings, and lost for words (**very light hesitation**) for its light, we have neglected to name even its foundations, or its roots, we were lost to it since the trace and indefinitely broke through a space studded with crucifers.

Figure 8: Alain Badiou, "F," *Sonate* [*Antagonisme*].

But while the poet enjoins the listener to see the stones of the city, he speaks in a florid, descriptive style that develops the ornamental vocabulary. The scene could be one from *The Day of the Triffids*, with the "forgotten stone" of the city "infested" by "sickly" vines. There is thus a contradiction between what the poet is saying ("see the city") and how he is saying it (with the ornamental vocabulary). In the next episode, the poet expresses doubt as to his ability to make the music see the city, wondering whether the gardens have not won out in the end against the ancient citadel. The poet expresses this thought in a single, long sentence held together by strict syntax and developing the foundational vocabulary.

Ou bien suis-je, moi qui parle, impuissant à vous faire voir la ville, notre royale instance par musique imprenable quand la dispersion des timbres vient l'assaillir, des rythmes, et que pour vous je soutiens contre un ruissellement sonore la suprématie du visible, seul à se donner comme ordre et fondation, pierre exacte, ou table tutélaire, toutes choses évanouies dans la scintillation qui les veut instaurer, quand je vous dis l'enfouissement par la séduction musicale de la ville rêvée, désormais par son chant infestée de jardins, et qui se voile, sous le lierre, d'intensités phosphorescentes, de timbres, si bien qu'espace déversé perdu pour la parole la ville oublie la nécessité qui la fonde,

Or then am I, me who speaks, powerless to make you see the city, our royal example impregnable by music when the dispersion of timbres come to assail it, of rhythms, and that for you I uphold against the sonorous torrent the supremacy of the visible, only to be given as order and foundation, exact stone, or tutelary table, all things vanish in the scintillation that establishes them, when I tell you the burying by the musical seduction of the dreamed city, form here on by its song infested with gardens, and which is veiled, beneath the ivy, with phosphorescent intensities, with timbres, so that spilled space lost for words the city forgets the necessity that founded it, the secret and rigid

l'architecture secrète et rigide, l'exactitude souterraine des pierres, la ville que pour vous prétend surprendre l'incertitude musicienne, oublie la table tutélaire sur quoi elle s'édifie, et ne la manifeste plus que par les dehors végétaux, les arborescences violettes très haut par dessus l'effondrement rouge des lierres, la scintillation des voilures tondues très haut, plus haut feuillage surchargé de lierres rouges vous devinez la ville au moment de la perdre, à peine inventée, dans le foisonnement qui la fit naître !

architecture, the subterranean exactitude of the stones, the city that for you claims to suspend the musical uncertainty, forgets the tutelary table on which it is built, and manifests it further only by its vegetal outsides, the high-up violet arborescences above the red slump of ivy, the scintillation of the canopy held up high, even higher foliage overloaded with red ivy you make out the city at the moment of losing it, hardly invented, in the abundance that gave birth to it!





Figure 9: Alain Badiou, “G,” *Sonate* [*Antagonisme*].

Darasse's response to the poet is masterfully ironic. In episode F, Darasse paints the poet's sickly vines with a sinuous violin line (ex. 3). Where the poet says “rhythms unique timbre, intensités,” Darasse punctuates the violin line with changing dynamics and articulations. One might expect that the dynamics and articulations of the violin part form a mode. Though several modes of articulations, pitches and dynamics appear in the sketches for use elsewhere in the piece, they do not appear to correspond to the violin part in episode F, neither in the manuscript score nor in the draft. The line thus appears mobile and arbitrary, in accordance with the ornamental surface of the poem. However, the violin solo presents the first clear statements of the piece's tone rows.⁵² Just as Darasse is pretending to hide the piece's matrix, he is putting it on display in the most unambiguous way.

The violin's rhythms are also far from arbitrary, but are based upon four *deçitalas* of Sharngadeva as printed in Albert Lavignac's *Encyclopédie de la musique et dictionnaire du conservatoire* (fig. 10). The rhythms, *pârvatilocana*, *pratâpaçekhara*, *miçra varna* and *lakskmiça*, are taken as a basic pattern of long and short durations. The rhythms that Darasse derives from the Indian rhythms sometimes diverge significantly from their models, as in the statement of *pratâpaçekhara*, which Darasse extends in order to state eleven pitches of row A:RI₉, VIII←.

The rhythmic patterns of episode F are *monnayés* or subdivided into groups of shorter note values and treated with irrational rhythms in a manner reminiscent of Messiaen's organ music, in particular his treatment of the rhythms in “Pièce en trio” from the *Livre d'orgue* (ex. 5).

⁵² See ex. 3.

Number in Order	Name	Number of Matras	Notation
26b	Miçra varna	14 3/4	
75	Pratâpaçekhara	4 1/4	
81	Pârvatilocana	15	
88	Lakskmiça	4 1/4	

EXAMPLE 3: Xavier Darasse, *Antagonisme*, episode F, bars 35–8. Statements of series A and B with Indian rhythms.

EXAMPLE 4: Olivier Messiaen, “Pièce en trio,” *Livre d’orgue*, bars 6–9.

The musical score for Example 4 consists of two systems, each with a Mandolin (MAN.) and Pedal (PÉD.) part. The first system covers bars 6, 7, and 8. Bar 6 is marked with a '6' and a '3' (triple). Above the MAN. staff, the labels 'pratâpaçekhara', 'gajajhampa', and 'lakskmîça' are placed over the first, second, and third measures respectively. The second system covers bars 9 and 10. Bar 9 is marked with a '9' and a '5' (quintuple). Above the MAN. staff, the label 'mîçra varna' is placed over the first measure. The notation includes various rhythmic values, accidentals, and articulation marks.

The violin solo of episode F presents an ironic relationship between its use of pitch and rhythm. Despite the sinuous rhythmic organisation of the solo depicting the vines obscuring the ordered stones of the city, the solo includes the first unaccompanied and linear statements of the piece’s tone rows.

If episode F clearly reveals its pitch materials while using decorative rhythms, episode Gb presents the inverse irony between pitch and rhythm. In episode G, the poet speaks one long sentence developing the foundational vocabulary. In bars 78–84, the sentence reaches a climax with the phrase “you make out the city at the moment of losing it, hardly invented, in the abundance that gave birth to it!” The poet’s crescendo is accompanied by the entire ensemble playing motoric statements of the two tone rows. While the strict rhythmic surface of the episode reflects the strict syntax of the text, the superimposed row forms are distributed in a way that makes them progressively less audible. Darasse also switches pitches within the rows and alters pitches at random. The altered pitches have been marked out in example six, which shows Darasse progressively altering the rows until each voice imitates two previously unheard rows of pitches in bars 82–4. When row A returns in bar 85, it is hammered out even more emphatically than before. However, each instrument plays the row a semitone transposition away from another, creating a dense succession of clusters.

EXAMPLE 5: Xavier Darasse, *Antagonisme*, episode Gb, bars 73–85.

The musical score is divided into three systems, each with four staves: Vibraphone (Vib.), Marmelade (Mrm.), Piano (Pno), and Recitation (Réc.).

System 1 (Bars 73-85):

- Vib.:** Bars 73-85. Dynamics: *mp*, *mf*. Annotations: A:P₀, 9; A:R₃, 12←.
- Mrm.:** Bars 73-85. Dynamics: *mf*. Annotations: A:I₃, II; A:R₉, 6←.
- Pno:** Bars 73-85. Dynamics: *mp*, *mf*. Annotations: B:R₃, R2; B:R₉, R5; B:P₂, III.
- Réc.:** surchargé de lierres rouges vous devinez la ville au moment

System 2 (Bars 80-85):

- Vib.:** Bars 80-85. Dynamics: *f*. Annotations: A:I₇, 6; A:RI₉, VII←; X₁.
- Mrm.:** Bars 80-85. Dynamics: *f*. Annotations: A:I₇, 6; A:RI₅, IV←; X₁.
- Pno:** Bars 80-85. Dynamics: *f*. Annotations: A:I₁₀, IX; A:I₆, V; B:R₈, R9; A:P₄, 1.
- Réc.:** de la perdre, à peine inventée dans le foisonnement

System 3 (Bars 83-85):

- Vib.:** Bars 83-85. Dynamics: *fff*. Annotations: X₂.
- Mrm.:** Bars 83-85. Dynamics: *fff*. Annotations: A:R₄, 1←; A:RI₂, I←.
- Pno:** Bars 83-85. Dynamics: *fff*. Annotations: B:I₁₀, invVIII; X₂; A:R₅, 2←; A:R₁₁, 8←; A:R₃, 12←; A:R₉, 6←.
- Réc.:** qui la [fff] fit naître !

- * Rotated from end of row.
- * Altered or out of sequence.

In episode Gb, Darasse paints an image of strict order through motoric rhythms. His use of pitch is ironic in relation to the rhythm because it is progressively obfuscated, both through altered pitches and the superimposition of transposed rows. If Darasse parodies the structuralist theory of music's double articulation, his setting of the text confirms Lévi-Strauss' later theory of music's interpretative function.

Music Talks Back

Lévi-Strauss believed that serial composers' adherence to the lieder tradition only confirmed the alienation of the first and second levels of articulation. Their dependence upon texts only revealed the composers' lack of faith in music as a "sovereign language" and "betray[s] an feeling of anxiety that, in the absence of a fairly apportioned code, complex messages may be inadequately received by those people to whom they have, after all, to be addressed."⁵³ Lévi-Strauss suggests that serial composers are only fooling themselves. For, since the natural and cultural articulations of music have been unhinged, music is perceived as either one or the other at different moments:

Sometimes all he derives from the instrumental parts is the flavor of the timbres, acting as a natural stimulant of sensual feeling; sometimes the use of wide intervals, which kills any budding desire for melody, gives the vocal part the doubtless false appearance of a mere expressive reinforcement of articulate speech.⁵⁴

Little did Lévi-Strauss know that in only a few years *The Raw and the Cooked* would be set to music in Luciano Berio's *Sinfonia*.⁵⁵ Lévi-Strauss felt that his text had been adopted as if by chance, not recognising it in the musical work.⁵⁶

By dividing music and text, Badiou was asserting music's coherence as an autonomous form of thought. This does not mean that a musical composition could not engage with a text. To the contrary, *Antagonisme* adopts a playful and critical attitude towards its text. At the end of the *Mythologiques* series, in *The Naked Man*, Lévi-Strauss wrote on music once more. This time he wrote not on music's relationship to language, but on music's relationship to myth. Whereas Lévi-Strauss'

⁵³ ———, *The Raw and the Cooked*, 25.

⁵⁴ ———, *The Raw and the Cooked*, 25.

⁵⁵ Luciano Berio, *Sinfonia: For Eight Voices and Orchestra* (London: Universal Edition, 1969).

⁵⁶ Jean-Jacques Nattiez, "Rencontre avec Lévi-Strauss," *Musique en jeu* 12 (1973): 6.

theory of music as language has been largely dismissed, Lévi-Strauss' discussion of music and myth has been embraced by musicology in the technique of paradigmatic analysis.⁵⁷

Lévi-Strauss hypothesises that “[i]f Wagner is accepted as the undeniable originator of the structural analysis of myths (and even of folk tales, as in *Die Meistersinger*), it is a profoundly significant fact that the analysis was made, in the first instance, *in music*.”⁵⁸ Wagner's use of leitmotifs may be considered an analysis of myth insofar as characters, objects, actions and themes in his music-dramas are related to one another through the reappearance and variation of musical themes. The music of Wagner's music dramas may be heard as a paradigmatic analysis of myth. Ruwet was one of the first musicologists to import paradigmatic presentation into musicology in his influential article “Méthodes d'analyse en musicologie.”⁵⁹ He describes paradigmatic analysis as a process in which

[e]quivalent sequences are, as far as possible, written one below another in a single column, and the text is to be read, ignoring the spaces, from left to right and from top to bottom. Thus, certain traits of structure become immediately apparent, as are certain ambiguities. Clearly, it would be very difficult to apply the same procedure to the presentation of polyphonic structures.⁶⁰

Lévi-Strauss developed paradigmatic analysis with regard to myth in *Structural Anthropology*, likening the process to reading an orchestral score. Lévi-Strauss imagines a future culture unearthing a library and eventually noticing that, while many of the books may be read from left to right and from top to bottom, all the lines of a certain number of books, orchestral scores, are read in a different manner. Eventually then the penny would drop and

after trying, without success, to decipher staves one after the other, from the upper down to the lower, they would probably notice that the same patterns of notes recurred at intervals, either in full or in part, or that some patterns were strongly reminiscent of earlier ones. Hence the hypothesis: What if patterns showing affinity, instead of being considered in succession, were to be treated as one complex pattern and read as a whole?⁶¹

⁵⁷ ———, *Music and Discourse*.

⁵⁸ Lévi-Strauss, *The Raw and the Cooked*, 15.

⁵⁹ Nicolas Ruwet, “Méthodes d'analyse en musicologie,” *Revue belge de musicologie* 20, no. 65 (1966). Translation from Nicolas Ruwet and Mark Everist, “Methods of Analysis in Musicology,” *Music Analysis* 6, no. 1–2 (1987).

⁶⁰ ———, “Methods of Analysis in Musicology,” 20.

⁶¹ Claude Lévi-Strauss, *Structural Anthropology*, trans. Claire Jacobson and Brooke Grundfest Schoepf (New York: Basic Books, 1963), 212.

As Delière remarked soon after the appearance of Lévi-Strauss' "Ouverture," music conceived as a model of structural analysis is distinctly different from a creative structural activity.⁶² Structural analysis is fundamentally an act of musical reception. Delière suggests that if musicians and the narrators of myth are structuralists, they are unaware of being so. While the former concerns the construction of a model of a structure, the latter creates a structure as such. Jean Pouillon clarified the difference between these two forms of structural activity in his introduction to an issue of *Les Temps modernes* on "the problems of structuralism."⁶³ French allows for these two meanings of "structural" through the two adjectives "structural" and "structurel". Lévi-Strauss uses the term "*pensée structurale*" in *The Raw and the Cooked* when describing the difference between "serial thought" and "structural thought" as general ways of viewing the world, though he would have been just as able to use the term "*pensée structurelle*." The adjective "*Structurel*" relates to a real object or relation as it is seen to exist and function in a structure. "*Structural*," on the other hand, indicates a category of structural analysis that may be transported from one structure to another. The difference highlights a key characteristic of Lévi-Strauss' thought, which is that his view is fundamentally hermeneutic, rather than creative.

Such an incongruity between creative and analytic structuralism did not stop René Leibowitz from using an analytical model from anthropology and using it in a composition. Leibowitz wrote a *Toccata* for piano based on a chapter entitled "Toccata and Fugue" in *The Raw and the Cooked*.⁶⁴ In the chapter, Lévi-Strauss is able to show the mythological equivalence of the rainbow with its nocturnal counterpart, the constellation of the Pleiades. While, according to Nattiez, the fusion of two distinct themes did not resemble a toccata to Leibowitz,⁶⁵ he nevertheless proceeded to base his *Toccata* on two series of different intervallic characters. Throughout the piece, the common intervals of the two series are used to produce a third, synthesised series.⁶⁶ While the three series are products of creative structural thought, they nevertheless refer to the process of structural abstraction, the first two

⁶² Delière, "Sur quelques motifs de l'ouverture aux Mythologiques."

⁶³ Jean Pouillon, "Présentation : un essai de définition," *Les Temps modernes* 246 (1966).

⁶⁴ Nattiez, "Rencontre avec Lévi-Strauss," 5.

⁶⁵ ———, "Rencontre avec Lévi-Strauss," 5–6.

⁶⁶ Maguire, "Rene Leibowitz (II)," 2–3.

themes representing the empirical givens of the two original myths and the third representing the model of structural analysis.

Nattiez makes the key observation that Lévi-Strauss' viewpoint is essentially hermetic in his extensive study of Lévi-Strauss and music, *Lévi-Strauss musicien*. Nattiez reads Lévi-Strauss' criticism of serial music through the lens of Molino's tripartition of music.⁶⁷ So Nattiez argues, it was impossible for the serialists and Lévi-Strauss to understand each other given their radically different perspectives with regard to the tripartite notion of music. Whereas the serialists' invention and development of compositional procedures were fundamentally poietic concerns, Lévi-Strauss insisted that music maintain its esthetic, communicative capacities.⁶⁸ Deliège considers the quarrel between serialists and structuralists around music as language to be a non-event, writing that "[a]t the time, in any case, neither the musician, nor the linguist, nor the anthropologist seemed to have felt that total serialism met the standards of structuralism."⁶⁹ If there has been a meaningful *rapprochement* between structuralism and contemporary music, it seems to have been in the semiological model of music as an interpretive tool rather than the linguistic analogy of music and language.

Antagonisme may well be analysed for the rapport of its leitmotif-like figures with the images of its text. Episode D provides several examples of musical figures associated with images.⁷⁰ Some figures relate to words through mimicry or word-painting. In bar 29, Darasse writes the word "*exacte*" from "*pierre exacte*" directly underneath two demisemiquaver dyads that seem to mimic the pronunciation of the word (ex. 3). The decorative filigree in bar 31 unmistakably paints the "*trois lierres rouges*" in the accompanying text.

Other text-music relationships are more abstract. The figure opening the episode appears to be related to the "*table tutélaire*" named in the previous bar. As is described above, the tutelary table is the space where musical rules are composed and recomposed. It is a space that is forgotten as soon as it appears in the musical constructions to which it gives rise. The image of the ephemeral *table tutélaire* thus consists of two parts: the table itself and its sudden, sparkling appearance and loss. In

⁶⁷ Molino's tripartition is explained at length in Nattiez's methodological treatise Nattiez, *Music and Discourse*, 11–12.

⁶⁸ ———, *Lévi-Strauss musicien*, 137.

⁶⁹ Deliège, *Invention musicale et idéologies 2*, 163.

⁷⁰ For more detail on how the figures in episodes A and D are delineated, see chapter seven.

the first two bars of the episode, the two parts of the *table tutélaire* image can be found in the words “*La table tutélaire ... luxe si peu*” [The tutelary table, the stone ... such little luxury]. The figure in bars 22–25 also consists of two parts: a sustained tetrachord in the bass register of bars 23–25 and the figure springing up across the piano staff in bar 22.

Each figure appears twice in the episode, each time accompanied by relevant images in the text. The tutelary table figure is heard again at the end of the episode, though its two parts appear in reverse order to their first appearance. Bars 33–34 present a sustained tetrachord with words evoking the originary tutelary table: “*comme juridiction d’un ordre*” [as jurisdiction of an order]. Two demisemiquaver dyads in bar 34 form the second part of the figure, decorating the words “*sa perte scintillante*” [its sparkling loss].

EXAMPLE 6: Xavier Darasse, *Antagonisme*, episode D, bars 21–34. Analysis of themes.

The musical score for Example 6 consists of three systems of piano (Pno) and vocal (Réc.) parts. The tempo is marked as quarter note = 76. The key signature has one sharp (F#).

System 1 (Bars 21-25):

- Bar 21:** Pno starts with a treble filigree. Réc. lyrics: "la table tutélaire, la pierre".
- Bar 22:** Pno has a treble filigree. Réc. lyrics: "luxe si peu,". A bracket labeled "La table tutélaire (appearing)" spans from bar 22 to bar 25.
- Bar 23:** Pno has a sustained tetrachord in the bass register. Réc. lyrics: "déchiffré sa fondation sans trace".
- Bar 24:** Pno has a sustained tetrachord in the bass register. Réc. lyrics: "déchiffré sa fondation sans trace".
- Bar 25:** Pno has a sustained tetrachord in the bass register. Réc. lyrics: "déchiffré sa fondation sans trace".

System 2 (Bars 26-30):

- Bar 26:** Pno has a treble filigree. Réc. lyrics: "vois la ville, aux voiles ses jardins".
- Bar 27:** Pno has a treble filigree. Réc. lyrics: "vois la ville, aux voiles ses jardins".
- Bar 28:** Pno has a treble filigree. Réc. lyrics: "vois la ville, aux voiles ses jardins".
- Bar 29:** Pno has a treble filigree. Réc. lyrics: "et la pierre exacte".
- Bar 30:** Pno has a treble filigree. Réc. lyrics: "et la pierre exacte en dessous".

System 3 (Bars 31-34):

- Bar 31:** Pno has a treble filigree. Réc. lyrics: "comme entre trois lierres rouges".
- Bar 32:** Pno has a treble filigree. Réc. lyrics: "comme entre trois lierres rouges".
- Bar 33:** Pno has a treble filigree. Réc. lyrics: "comme juridiction d'un ordre".
- Bar 34:** Pno has a treble filigree. Réc. lyrics: "sa perte scintillante".

The treble filigree of the three ivies also appears in bar 28, this time accompanying the word “*jardins*” [gardens]. The first appearance of the exact stone

figure is stretched over bars 25–28. Even at this protracted scale, one can distinguish its characteristic prolonged tone (in this case a dyad) and the two rapid dyads in the treble of bar 26. Throughout these bars, the poet evokes the exact stone in the injuncture to “*vois la ville*” [see the city].

The three musical figures so far identified group the text into three semiological groups or homologies: Firstly, filigree unites the terms “ivy” and “garden” as parts of the natural vocabulary. Secondly, the exact stone figure unites the “stone” and the “city” as cultural signs. The third group unites elements from the cultural vocabulary (“tutelary table” and “jurisdiction”) with elements from the natural vocabulary (“sparkling loss” and “little luxury”). This third group is not mentioned in the poet’s Foreword. The Foreword speaks only of a single synthetic term: “*affleurement des signes*” [outcrop of signs]. The semiological analysis of episode D thus shows that the vanishing tutelary table is something other than the stone, the ivy and the outcrop of signs. As the next chapter will show, Badiou was not entirely convinced of the dialectical mechanisms of structural change proposed by Althusser at the ENS, including epistemological break and structural causality. Instead of a closed structural system, *Antagonisme* shows the vestiges of Badiou’s Sartrean fidelity wherein radical choices can change the situation in question. Read as a semiological interpretation of Badiou’s text, Darasse’s score shows up the hidden fourth term of the poet’s dialectic.

The semiological analysis points towards other ways in which Darasse’s score exceeds the text. With each figure appearing twice, Episode D is roughly symmetrical. Chapter seven will show in more detail how episode D is in fact constructed out of nested musical symmetries. One figure, figure *y*, appears not two, but three times (or, to be precise, two times and two-thirds of a time), in bars 24, 30–31 and 32. Figure *y* is characterised by a single pitch, a dyad and a trichord. These three pitch groups are played one after another in short, medium and long durations. The statement in bar 32 is the clearest example of the figure: The single pitch, dyad and trichord have the durations of one, two and three semiquavers respectively. Darasse does not associate this figure with any particular part of the poet’s lexicon. The coincidence of the figure with the words “*en dessous*” [below] in bar 30 offers some clue to what the figure might mean, if one accepts that Darasse’s placement of the text is pertinent. The “*en dessous*” may imply Darasse’s subterranean or underhanded subversion of the text. The figure is in fact an interversion, or a double interversion of durations and pitches.

As I will argue further in chapter seven, figure *y* represents Darasse's use of interversion as a way of surpassing the poet's text. For the moment, figure *y* demonstrates a limit in reading Darasse's surface-level painting of Badiou's text.

Darasse surpasses the poet's double double-articulated image of music through more than ironic word-painting. The text is, after all, ridiculous enough. In the image of the stone and the ivy, the text provides a highly unsatisfactory metaphor for structural articulation. The Foreword states that the two vocabularies are not absolutely divided, but that the first is "dispersed" and "risks itself" in the second. The narrator claims to synthesise these two vocabularies through "alliances," "derivations" and "contrasts."⁷¹ But how can one vocabulary form the building blocks of an entirely different vocabulary on the same level of articulation? Or, put another way, if the second, ornamental level of articulation is built out of the elements of the first, why does the poet of *Antagonisme* use an image of superimposition to describe it? Only at the end of the poem, in what seems a break of character, does the poet say that a new tutelary table could be written. In a block of text that was deleted by Darasse, the poet says "To think, to create, is to manifest these constraints, this ground of countable beauty and of exactitude in which is recognised what is older than a pleasure of man (...) music is the forgetting of what founds it."⁷² Darasse and Badiou assert, *contra* Lévi-Strauss, the possibility of the radical renewal of music's foundations.

Composing Order

It is remarkable that Messiaen avoids detection in the furore between serialists and structuralists. Messiaen's experimental works not only radically break with music's harmonic grid, it attempts to invent another in their affirmation of order as a musical parameter. Lévi-Strauss recognises the serialists' desire to create new codes that would then circulate socially. While he recognises the task at hand, Lévi-Strauss doubts the viability of the project due to serialism's abandonment of physiological limits. Quoting *Boulez on Music Today*, he writes:

The exponents of the serial doctrine will no doubt reply that they have abandoned the first level to replace it by the second, but they make up for the loss by the invention of a third level, which they count on to perform the function previously fulfilled by the second. Thus, they maintain, they still have two levels. We have had in the past the ages of monody and polyphony;

⁷¹ See Fig. 4. This text was not included in the manuscript.

⁷² See Fig. 15.

serial music is to be understood as the beginning of a “polyphony of polyphonies”; through it the previous horizontal and vertical readings are combined in an “oblique” reading. But in spite of its logical coherence, this argument misses the essential point: the fact is that, in the case of any language, the first articulation is immovable, except within very narrow limits. And it is certainly not interchangeable.⁷³

The above criticism could well be levelled at Messiaen’s prioritisation of order as a grid of musical articulation. However, Messiaen’s use of order as a musical parameter is not unprecedented, nor entirely divorced from physical reality. His use of order may be likened to Schoenberg’s use of dissonance as explained in James K. Wright’s comparison of Schoenberg’s aesthetics and the philosophy of the Vienna Circle. Wright argues that Schoenberg’s innovations in pitch were not made despite the physical basis of harmony,⁷⁴ but in addition to them. Wright calls this the “Icarus principle.” Composers can only innovate if they respect perceptual and acoustic universals, much as a designer of aeroplanes must understand gravity in order to defy it. The numerous examples of order-based permutation throughout history suggest that order is a universal but marginalised musical parameter.

At the same time as Messiaen was composing his experimental works, the music theorist Rudolph Reti published a description of what he also called “interversion” in his book of motivic analyses *The Thematic Process in Music*. Reti argues that classical composers often produced new themes from old by reordering the notes of a motif, exchanging entire passages or even interleaving segments of different themes. Reti appears unaware of Messiaen’s interversions, writing that “[s]ince the current theory is so unaware of this type of transformation that not even a name has been designated for it, we are compelled to invent a new term and may call it an *interversion*.”⁷⁵ Reti gives numerous examples from the works of Beethoven, beginning with themes from the opening and closing movements of Beethoven’s String Quartet in C# Minor, Op. 131.

⁷³ Lévi-Strauss, *The Raw and the Cooked*, 24.

⁷⁴ James K. Wright, *Schoenberg, Wittgenstein and the Vienna Circle* (Bern: Peter Lang, 2007), 47.

⁷⁵ Reti, *The Thematic Process in Music*, 72.

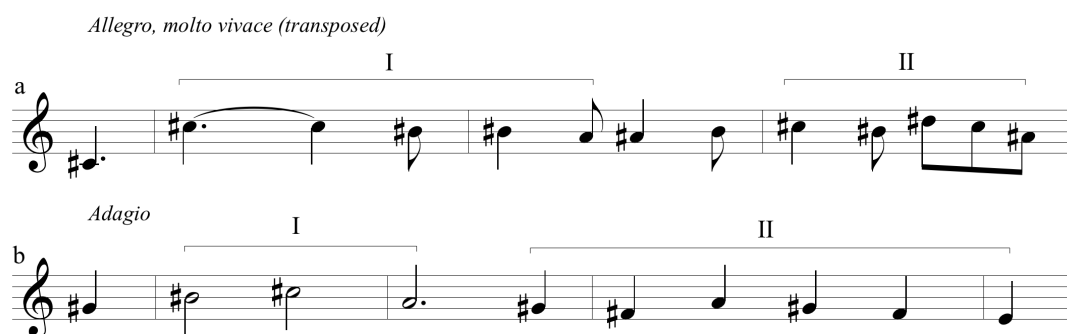


Figure 11: Interverted themes from Reti, *The Thematic Process in Music*, 72.

Like pre-dodecaphonic retrograde and inversion transformations, the interversions Reti identifies in Beethoven’s works are relatively “free” and unsystematic, responding to the melodic and harmonic needs of their contexts.

Messiaen’s interversions also resemble the practice of change-ringing that began in England in the sixteenth century.⁷⁶ Through this secular practice, sets of church bells are rung in every possible permutation. The permutations used in change-ringing, such as the “plain hunt” (fig. 12) involve swapping adjacent bells in the sequence, a process that is relatively simple to coordinate in groups.

Plain Hunt on four bells
1 2 3 4
2 1 4 3
2 4 1 3
4 2 3 1
4 3 2 1
3 4 1 2
3 1 4 2
1 3 2 4
1 2 3 4

Figure 12: Plain hunt on four bells. From Wilson and Coleman, “Change Ringing.”

Poetry has proven an inspiration for order-based permutations, providing a fertile *reasonance* with musical form throughout the twentieth century. The sestina, a poetic form attributed to the medieval troubadour Arnaut Daniel, uses a permutation identical Messiaen’s interversions (see chapter seven). A sestina consists of six six-

⁷⁶ Wilfrid G. Wilson and Steve Coleman, “Change ringing,” *Grove Music Online*, accessed 25 October 2014, www.oxfordmusiconline.com.

line stanzas with six different end-words. The end-words of each stanza are derived through a permutation of the end-words of the stanza before it. The end-words of the new stanza are taken from the extremities of the old, beginning with the last and first end-words and working inwards. Thus, the last end-word of the old stanza is taken as the first end-word of the new. The first end-word of the old stanza becomes the second end-word of the new. The second-to-last end-word of the old stanza becomes the third end-word of the new and so forth. The form allows for some flexibility. More than one end-word may be taken from one end of the poem at a time. The form has been set to music throughout history, including in Claudio Monteverdi's "Sestina" from *Il sesto libro de madrigali*. In the poem of Monteverdi's madrigal, *Incerite spoglie, avara tomba* by Scipione Angelli, the first line of the second stanza uses the last end-word of the first, but then two end-words are taken from the beginning of the poem and two from the end.

1. Incenerite spoglie, avara **tomba**,
2. fatta del mio bel sol terreno **cielo**,
3. ahi lasso, i'vegno ad inchinarvi in **terra**.
4. Con voi chius'è'l mio cor a'marmi in **seno**.
5. e notte e giorno vive in foco, in **pianto**,
6. in duolo, in ira, il tormentato **Glauco**.

6. Ditelo, o fiumi, e voi, ch'udiste **Glauco**
1. l'aria ferir di grida in su la **tomba**,
2. erme campagne, e'l san le Ninfe e'l **cielo**:
5. a me fu cibo il duol bevanda il **pianto**,
4. letto, o sasso felice, il tuo bel **seno**,
3. poi ch'il mio ben coprì gelida **terra**.⁷⁷

A conventionally-permuted sestina only permits six stanzas because the seventh stanza returns to the first order of end-rhymes.⁷⁸ Introduced to the sestina by R. P. Blackmur, a literary critic based at Princeton University, Ernst Krenek used the form as the basis for his musical work *Sestina* in 1958. Krenek wrote a sestina of his own in German and set the poem with a tone-row that was likewise permuted. Krenek permuted the two hexachords of his twelve-tone row independently, producing six

⁷⁷ Scipione Angelli, "Incenerite Spoglie" in Claudio Monteverdi, *Songs and Madrigals*, trans. Denis Stephens (Maryland: Scarecrow Press, 2000), 92. Lines 1–12. My emphasis.

⁷⁸ Claudio Monteverdi, "Sestina," *Il sesto libro de madrigali a cinque voci* (Venice: Appresso Ricciardo Amadino, 1926).

unique row forms.⁷⁹ Krenek gives no indication that he was aware of Messiaen's use of interverson at the time, referring to his own permutations as "rotations."⁸⁰

Roy Howat has shown how Ravel uses order-based permutations throughout his piano music, in particular through the swapping of antecedent and consequent phrases.⁸¹ Once again, Ravel was inspired by a poetic model. Ravel's *Pantoum* is based on the Malay poetic form, the pantun. The pantun consists of quatrains including two contrasting couplets. The second and fourth lines of each quatrain reappear as the first and third lines of the next. If examples of order-based permutation may be found throughout music history, Messiaen introduced a hitherto unexplored rigour into the practice.

Conclusion

Faced with structuralist criticisms, defenders of serialism have conceded that early serial compositions exceeded the limits of human perception. They have then argued for the continued relevance of larger-scale levels of serial organization including groups and envelopes. This chapter pointed toward ways in which the intervallic contour of twelve-tone rows have been crafted, arguing that one need not entirely dispense with the row as a thematic unit. I have then argued that Messiaen's privileging of order as a musical parameter goes much further than the serialists in rejecting the structuralists' harmonic grid.

Darasse used the tone row in *Antagonisme* as a symbol of order in the sense of Lévi-Strauss' first level of articulation. He then deploys the row in a second, rhythmic level of articulation, variously revealing and obscuring the tone row to paint the poet's image of music. As has been shown, the rhythm and pitch in *Antagonisme*'s score, as well as the sense and sound of its text, maintain an ironic relationship. This evocative use of the row frustrates the structuralist criticism of serial music as fundamentally uncommunicative and meaningless. At the same time, it confirms Lévi-Strauss' theory of music's mythical or interpretative function. Is this the extent of Darasse's "exceeding" the poet's image of music, as Badiou urged in his first letter? A semiological consideration of episode D showed the insufficiency of considering

⁷⁹ Taruskin, *Music in the Late Twentieth Century*, 39–40.

⁸⁰ John Lincoln Stewart, *Ernst Krenek: The Man and His Music* (Berkeley: University of California Press 1991), 170.

⁸¹ Roy Howat, "Ravel and the Piano," in *The Cambridge Companion to Ravel*, ed. Deborah Mawer (Cambridge: Cambridge University Press, 2012), 89–90.

Darasse's word-painting to be the full extent of his response to Badiou's text. As chapter seven will show, Darasse uses interversion from the large-scale form of the work down to the construction of its tone rows. The piece thus has purely musical stakes beyond its subversive use of word-painting.

If the poet is not to be taken seriously, where is *Antagonisme*'s philosophical counterpart? It is Badiou's first theoretical article, "Autonomy of the Aesthetic Process." The next chapter explains the origin of Badiou's article in the Marxist-structuralist debates among a group of students gathered around Althusser at the ENS. By explaining Badiou's theory of aesthetic autonomy and its "modes of aesthetic production," the ground will be set for the analysis of *Antagonisme*'s competing musical styles in chapter seven.

6. The Autonomy of the Aesthetic Process

Badiou's engagement with Althusserian theory would have been a very recent development in 1964. During Badiou's time at the ENS (1956–61), Althusser was known as a rather traditional philosophy “*caiman*,” that is, one who prepared students for their philosophy examinations.¹ Althusser's students urged their teacher's first lectures on the “young Marx” only in 1961 after he published *Feuerbach's Philosophical Manifestos*.² He proceeded to lecture on Lévi-Strauss, Montesquieu and Foucault and arranged lectures by Jacques-Alain Miller, Pierre Macherey, Jacques Rancière, Étienne Balibar, Jean-Claude Milner and Michel Tort.³

Althusser began a collective study of Marx's *Capital* in 1964 that became the influential collection of texts *Reading Capital*. At this time he also approached Badiou to give his seminar on aesthetics. Althusser considered Badiou something of a “celebrity”⁴ after the publication of *Almagestes*. While “Autonomy” is signed June 1965, the month of the première of *Antagonisme*, it was not published in the *Cahiers marxistes-léninistes* until a year later.⁵

Badiou thus wrote *Antagonisme* concurrently with his seminar for the ENS and was at least familiar with the work that was to be published in *For Marx*. This point requires attention because there is some ambiguity in the chronology of Badiou's acquaintance with the Althusser circle. Badiou claims that his return to the ENS was triggered by a fateful reunion with the philosopher and playwright François Regnault in the 1965–66 academic year, claiming that “Regnault arrived in Reims at the start of the academic year of 1965. We became great and deep friends. It was he who told me of the *Cahiers pour l'Analyse*, Althusser's seminar and the tensions between the two.”⁶ However, Regnault's biographies, including that which appears in *Concept and Form*, claim that he taught in Reims from 1964–70.⁷ It is possible, then, that Badiou's fateful encounter with Regnault occurred a year earlier than he

¹ Tho and Bianco, *Badiou and the Philosophers*, xxii.

² Dosse, *The History of Structuralism*, 288.

³ ———, *The History of Structuralism*, 289.

⁴ Althusser in Hallward, “Introduction: Theoretical Training,” 51.

⁵ Alain Badiou, “L'autonomie du processus esthétique,” *Cahiers Marxistes-Léninistes*, no. 12–13 (1966).

⁶ Hallward and Badiou, “Theory from Structure to Subject,” 277.

⁷ Peter Hallward, “François Regnault (1938–),” *Concept and Form: The Cahiers pour l'analyse and Contemporary French Thought*, accessed 31 March, 2014, <http://cahiers.kingston.ac.uk/interviews/badiou.html>.

remembers. At any rate, Althusser was able to write to Franca Madonia on 7 November 1964 that “this guy [Badiou], with Foucault, is the strongest of all the strongest who have passed through here [...]. He knows a pile of things about maths and modern logic, then he has written an enormous novel.”⁸

Althusser’s own aesthetic theory was never fully articulated and what scattered comments he did make were roundly criticised by his students. In this way, Althusser defined the problem situation of “Autonomy of the Aesthetic Process.” “Autonomy” criticises Althusser and Macherey’s definitions of art as a distorted reflection of the social situation. Instead, he theorises a “mode of aesthetic production” independent from ideological and economic production.

Though Marxism forms a great part of the philosophical problem situation of *Antagonisme*’s text, it also contributes elements to the work that are already aestheticised and so not to be taken too literally within the philosophical situation. I am writing (and about time, too) about the title and the large-scale dialectical form of the piece.

Badiou originally called his poem “Sonate,” not “Antagonisme.” Late in the composition process Badiou proposed the titles

“*antagonisme P*” or “*éristique P*”—the “I” signifying that, in the case that the work pleases you, we could envisage a ‘treatment’ of the word under ulterior and growing forms, going from the trio to the Great Opera while passing by the brass symphony and the Oratorio for seven mixed choirs! ⁹

The political connotations of the work’s final title, *Antagonisme*, would not have been lost on anyone. At the time of writing the text, Badiou was general secretary of the PSU (Parti Socialiste Unifié) at La Marne.¹⁰ His Maoist commitments became more overt after May 1968, when in 1969 he led a Maoist group in the PSU and authored the pamphlet “Towards a Marxist-Leninist Party of a New Kind.” The group eventually splintered off and became that UCF-ML (the Marxist-Leninist Union of Communists of France).¹¹ Mao’s pamphlet “On Contradiction” developed the Marxist conception of contradiction into “antagonistic” and “non-antagonistic” contradictions. To Mao, a contradiction, such as that between the exploited and exploiting classes (or, to put it in a more contemporary context, between a mining company and the citizens

⁸ Louis Althusser and Franca Madonia, *Lettres à Franca: 1961–73* (Paris: Stock/IMEC, 1998), 576.

⁹ Alain Badiou to Xavier Darasse, 1964–5, Msc31.7.

¹⁰ Hallward and Badiou, “Theory from Structure to Subject,” 276.

¹¹ Bruno Bosteels, *Badiou and Politics* (London: Duke University Press, 2011), 119.

of a low-lying coastal city near one of the most fragile and unique coral ecosystems on Earth), may simmer along for decades or even centuries in a non-antagonistic state before it “assumes the form of open antagonism and develops into revolution.”¹²

Badiou’s philosophical writings on contradiction are Maoist, insofar as Maoism is considered, following Bruno Bosteels, “in more strictly philosophical terms” as “an understanding of the dialectic as precisely such a thinking of revolt, the logic of scission, which proceeds without end through inner splits and divided recompositions.”¹³ Mao’s dialectic is explicated in *L’écharpe rouge*, the opera by Georges Aperghis based on a *romanopéra* by Badiou. The book was written during Badiou’s “red years” of political action between 1968 and 1976.¹⁴ In the first scene in which he appears, the character Simon (who shares Badiou’s interest in forming a “Marxist-Leninist party of a new type”¹⁵) explains his notion of the dialectic to a group of youths using the image of a waterfall.¹⁶ “Everything has its coat of arms,” Simon declares, “and mine is the waterfall.” Simon sings an air recalling the Maoist maxim that “one divides into two” about how a waterfall, split by a rock, gathers again into a single pool below. Elsewhere, in a wonderfully comic scene, a worker in a village demonstrates the dialectic to a group of onlookers by staging the deposition of a local landowner. The worker shows how, every time the people are united in purpose they once again disagree on to how to proceed. The worker begins “In a word: The more one is united, the more one is divided. To be truly united, one must have been divided to begin with.”¹⁷

¹² Mao Tse-tung, “On Contradiction,” in *Selected Works of Mao Tse-Tung* (Peking: Foreign Languages Press, 1965), 343.

¹³ Bosteels, *Badiou and Politics*, 111.

¹⁴ The “red years” refers to the period of intense activity in French Maoism between May 1968 and 1978. ———, *The Communist Hypothesis*, trans. David Macey and Steve Corcoran (London: Verso, 2010), 59–60.

¹⁵ Alain Badiou et al., *Contribution au problème de la construction d’un parti marxiste-léniniste de type nouveau* (Paris: François Maspero, 1969).

¹⁶ There is an autobiographical element to the opera. The waterfall is the backdrop to the beginning of Badiou’s 1967 novel *Portulans* where the protagonist is more explicitly associated with the author. It is an important emblem for the hitherto unexplored “naturalist” Badiou. In fact, when in school Badiou never considered being a philosopher, but was torn between becoming an actor or an Inspector of Water Affairs and Forestry. Clare is the name of the protagonist’s sister in Badiou’s novels. When asked about the figure of the sister in *L’Écharpe rouge* in 1981 Badiou responded that “There, we perhaps enter into a more obscure, more personal zone, because there is a moment where the artistic thing is no longer reducible to its philosopheme.” Gérard Miller and Alain Badiou, “L’opéra politique d’Alain Badiou,” in *Entretiens: 1981–1996* (Paris: Nous, 2011), 11.

¹⁷ Alain Badiou, *L’Écharpe rouge*, 1984, Typescript, CDMC04665, Centre de Documentation de la Musique Contemporaine, Paris.

The emergence of novelty was strictly associated with destruction to Badiou during the red years. The perpetual emergence of novelty through the destruction of unities features in Badiou's earliest texts on contradiction. In *Theorie de la contradiction*, Badiou claims that "[t]he resolution of a contradiction is not, is never, the synthesis of its terms. We hold there one of the most stable and ancient truths of Marxism: The struggle destroys and transforms [...]".¹⁸ Badiou later remarked that, in regard to his early book of philosophy *Theory of the Subject* that he was "a little misguided [...] concerning the theme of destruction. I still maintained, back then, the idea of an essential link between destruction and novelty." As explained in chapter two, the theme of destruction returns in Badiou's later philosophy coupled to the more affirmative concept of subtraction.

How seriously can the title *Antagonisme* be taken in relation to the piece? In the preceding chapters, several nested oppositions have been described. The opposition of text and music may be taken as the primary contradiction of the work. There are then secondary oppositions between the pair of ornamental and fundamental vocabularies and the pitch and rhythm of the music. As has been shown in the previous chapter, these secondary oppositions form ironic relationships, casting doubt on the poet's assertion of the primary contradiction between text and music. None of these oppositions are truly explosive or antagonistic because neither aspect of the contradiction is ultimately destroyed. Instead they constitute the work in non-antagonistic contradiction. After all, does not the work end peaceably with a nice sunset and the synthetic phrase "outcrop of signs?"

Antagonism is a formal conceit rather than a serious theme of the work. In his first letter to Darasse, Badiou envisaged a Maoist dialectic proceeding between two contradictions (fig. 13). Episodes A–F were to constitute an "initial contradiction" terminating in the "central sonata" (episode G), followed by a "resolution" in episodes H–K ending with a "final contradiction" in episodes M and N. Badiou's dialectical plan is represented in the instrumentation of each strophe. The first strophe contains a solo for each instrument, as well as the three possible duo combinations of the three instruments. In the "resolution," tutti sections are incorporated into the plan and there is no violin solo. It is as though the first section includes an antagonistic contradiction between the violin and the piano, from which the piano emerges victorious, only to

¹⁸ ———, *Théorie de la contradiction*, 85.

form part of a new contradiction with the *tutti* ensemble. As is shown in the section on “mosaic form” in chapter seven, Darasse changes Badiou’s formal plan and breaks the strophes down into modular groups that reflect the formal priorities of retrogradation and interversion.

Episode	Instrumentation	Strophe
A	Piano	Initial Contradiction
B	Narrator	
C	Piano Violin	
D	Piano Narrator	
E	Violin	Central Sonata
F	Violin Narrator	
Ga	Tutti	
Gb	Tutti	
Gc	Tutti	Resolution
H	Piano	
I	Narrator	
J	Tutti	
K	Piano Violin	Final Contradiction
L	Tutti	
M	Narrator	
N	Tutti	

Figure 13: Formal plan of *Antagonisme* from letter, Alain Badiou to Xavier Darasse, 1964, Msc31.7.

Badiou’s text reflects the dialectical form through its presentation of contrasting vocabularies during the “initial contradiction” and their synthesis in the “outcrop of signs.”¹⁹ The music, similarly, pursues its own internal conflict between the revelation of the work’s tone rows and their obfuscation through rhythmic development. But where is the final contradiction? It does not help that the Mallarméan solar drama that plays out in the poem ends on a synthetic note.

In the poem, “the infection of day” is associated with the vegetation of the ornamental vocabulary in episode F. As sunset descends in episode L, the vines and stones cannot be told apart. The poet announces that “Order and Ornament can no longer be distinguished” in the “immemorial twilight” of music. We are instructed that “night deploys the *other* evidence,” revealing the foundation of the musical structure. The stones do not appear independently, such as they were evoked by the

¹⁹ See appendix one.

poet. They are transformed by their dialectical encounter with the ivy. They are made out between the ivy as an “outcrop of signs.”²⁰

Antagonisme, M

La nuit prend possession de toute pierre, de tout lierre. Des tables et des voiles, elle ne laisse subsister, qui recommence, s’efface, se renoue, que l’immobile affleurement des signes.

Antagonism, M

The night takes possession of every stone, of every ivy. Of the tables and veils it leaves, what recommences, erases itself, resumes, only the immobile outcrop of signs.

Figure 14: Alain Badiou, “M,” *Sonate* [*Antagonisme*].

In the final moments of the piece, the outcrop of signs begins the new contradiction as the foundational element that “recommences, erases itself, resumes.”

To define the non-synthetic contradiction of *Antagonisme*, it is necessary to look past the linear makeup of the work’s literary and musical surfaces and consider the contradictions of the synchronic structure of art as such. At the time, this project required a radically new understanding of subjectivity and structure. In the few years following the creation of *Antaognisme*, Badiou contributed to this project through the journal *Cahiers pour l’Analyse*, a journal formed by a group of Althusser’s former students at the ENS.

Departure from Sartre

If Sartre continues to be of central importance in Badiou’s philosophy, you would not know it from the strict exclusion of the existentialist subject of his early novels in his writings for the *Cahiers pour l’Analyse*. Badiou has nevertheless highlighted his own distance from the other editors of the *Cahiers*, who were several years younger than he: “[E]ven if there are only a few years of difference, ideologically and philosophically these few years are important. In particular, I had a Sartrean background and training [...]”.²¹

²⁰ As will be discussed further in the conclusion, the Marxist and structuralist resonances of Badiou’s image of the red ivy in *Antagonisme* contrast strikingly with the return of the ivy motif in *Logics of Worlds*. Here we find the red ivy and the stones underneath it illustrating the conjunctive modes of appearing in Badiou’s logic of the transcendental. In this case the images are used purely illustratively, “independent of any idealist symbolism.” Badiou, *Logics of Worlds*, 126.

²¹ Hallward and Badiou, “Theory from Structure to Subject,” 273.

Badiou's writings keenly register the shift from Sartre's intentional subject to the discussions around overdetermination and structural causality among the Althusserians at the ENS. At the time of the *Cahiers pour l'Analyse*, Badiou and his colleagues "were no longer able to believe in the engendering of the general system of formal structures on the basis of the simple intentionalities of consciousness."²² Instead, they

worked the other way around. We began by assuming the formal constructions as such, the general system of structures, but we then tried to see in what breach, in what crack, in what disruption of this system, the subject and freedom might possibly spring up. This is what I have done until this very day, it must be said.²³

Described as "the most symptomatic emanation of the structuralist fervour of the sixties, in its unbounded ambitions, in its most radical scientific experiments,"²⁴ the *Cahiers* group sought to divorce structuralist analysis from the empiricism of Lévi-Strauss and Saussure. Yves Duroux, another contributor to the *Cahiers*, has called the theory developed in the *Cahiers* "strong structuralism" in comparison with the subjectless, "weak structuralism" of Lévi-Strauss and Barthes.²⁵

Badiou's earliest articles on art and science in the *Cahiers pour l'Analyse* and the *Cahiers marxistes-léninistes* left no room at all for a subjective force capable of choice or influence upon a structure. Badiou was fundamentally suspicious of the notion of lack around which Lacan had built his theory of the subject, especially when it was applied to forms of scientific writing. In "Mark and Lack: On Zero," Badiou argued for the foreclosed, subjectless nature of formal logic and mathematics.²⁶

Instead of empirical observations in anthropology, the *Cahiers* group investigated the formal structures of mathematics, physics, politics, economics and literature. They associated the lived experience at the backbone of the empirical sciences with suspect, repetitive ideology.²⁷ Nowhere did science break more from the lived structures of ideology than in pure mathematics. Here Badiou's mathematical

²² ———, "Theory from Structure to Subject," 278.

²³ ———, "Theory from Structure to Subject," 279.

²⁴ Dosse in Hallward, "Introduction: Theoretical Training," 3n6.

²⁵ Peter Hallward and Yves Duroux, "Strong Structuralism, Weak Subject: An Interview with Yves Duroux," in *Concept and Form: Key Texts from the Cahiers pour l'Analyse*, ed. Peter Hallward and Knox Peden (London: Verso, 2012), 187.

²⁶ Alain Badiou, "Mark and Lack: On Zero," in *Concept and Form*, vol. 1.

²⁷ Althusser, *For Marx*. 252.

formation gave him a great advantage. Badiou remembered in a recent interview how “the epistemological significance of mathematics, of formal logic [...] were all things we discovered on our own, as best we could. At the time there was only a single teacher who dealt with any of these things, Roger Martin.”²⁸

Music and Ideology

Badiou’s theoretical hermeticism was thus stricter than that of Althusser, who excluded art from the same serious considerations of structural autonomy as science. In Althusser’s reading of Marx’s work, modes of production are understood as double-articulated structures. However, beyond this terminological similarity, language and modes of production have little in common. Unlike language, the two levels of articulation of a mode of production articulate the same elements, such as, in our political-economic situation, the entire productive apparatus of labourers, means of production and non-labourers. The two levels of articulation differ in the ends to which they articulate these elements. The first level of articulation, “forces of production,” is concerned with the appropriation of “nature,” or already-existing elements. The second level of articulation, “relations of production,” is concerned with the expropriation of products. In a political-economic situation contradictions arise in the gap that opens up between these two levels of articulation, the most basic of which is the disparity between use-value and exchange-value.²⁹ The question of a mode of production is less about what is articulated (as in Lévi-Strauss’ physiologically-restricted musical scale) than how it is articulated. How does the first level of articulation relate to the second? What are the operations that each level carries out?

Althusser grouped art together with religion, ethics, philosophy and law as a branch of ideological practice.³⁰ He thus perpetuated a tradition of Marxist thought stretching back to Marx himself. When Althusser associates art with ideology in passing in an article first published in 1964,³¹ he was principally responding to the rising tendency in communist parties and organisations towards a “Marxist humanism”

²⁸ Hallward and Badiou, “Theory from Structure to Subject,” 274.

²⁹ Ben Brewster in Louis Althusser and Étienne Balibar, *Reading Capital*, trans. Ben Brewster (London: Verso, 1970), 355.

³⁰ Louis Althusser, “Marxism and Humanism,” in *For Marx* (London: Verso, 2005), 231.

³¹ “Marxism and Humanism” was first published in the *Cahiers de l’I.S.E.A* in June 1964 and republished in *For Marx* later that year.

drawn from Marx's early writings. In this article, Althusser distinguishes between Marx's early and later works. Whereas the early works are based on the problematic of "human nature," the humanist problematic is relegated to the sphere of ideological practice in the later works. Mâche, too, was aware of the dangers of too humanistic a perspective, however he saw Lévi-Strauss less as an enemy than as a way out of the historical-materialist world-view:

The context of the existentialism or of the Marxism of my formative years had condemned in advance any approach that sought to oppose the renewed hypothesis of a universal human nature to the tyranny of History. The emergence of generalised structuralism thanks to Lévi-Strauss offered it a new legitimacy.³²

Indeed, what room was there for music as such in a theory that argued, after Marx's Preface to *A Contribution to the Critique of Political Economy*, that

[i]n studying [revolutionary transformations in the economic foundation] it is always necessary to distinguish between the material transformation of the economic conditions of production, which can be determined with the precision of natural science, and the legal, political, religious, artistic or philosophic – in short, ideological forms in which men become conscious of this conflict and fight it out.³³

To Marx, music forms part of society's ideological superstructure, which is ultimately determined by society's economic "base" or "infrastructure." The work of art then poses a synthetic question to the Marxist critic. In terms of ideological production (How does the artwork establish a consciousness of the economic base?) and economic production (How is the production of the work of art determined by the economic base?) the work of art asks: "How does the economic base determine the consciousness of its period?"

The question cannot be posed quite so bluntly, given Althusser's decentralising of economic production in the social formation. Althusser expanded the theory established by Engels and Mao that economic, the political and ideological practices constituted the three processes of production of the social formation.³⁴ To this list Althusser added a fourth: theoretical practice. In each practice, raw materials

³² Mâche, *Musique au singulier*, 10–11.

³³ Karl Marx, "Preface (to *A Contribution to the Critique of Political Economy*)," in *Early Writings* (London: Penguin, 1975), 426.

³⁴ Brewster in Althusser, *For Marx*, 253.

are transformed, through determinate means of production, into a particular product.³⁵ For example, in economic practice nature is transformed into socially useful products (wood is transformed into tables and so on). The raw materials of political practice are social relations, which are transformed into new social relations. Althusser defined ideological production as the transformation of “men’s ‘consciousness.’”³⁶ Finally, theoretical practice transforms raw materials from other practices, such as ideological “representations” or “concepts,” into knowledge. Each practice therefore functioned within a delimited domain of objects, processes and effects.

Badiou was careful to stress the line Althusser drew between ideology and science in Althusser’s work and so the importance of dialectical materialism as the theory of “the system of pertinent differences that at the same time separate and conjoin science and ideology.”³⁷ Whereas science is a practice that uses concepts to produce knowledges, ideology is “a system of representations of which the function is practico-social and which designs itself in a set of notions.”³⁸ Whereas science produces a model of the real, ideology produces “the lived.”³⁹ Whereas science is a process of transformation, ideology is a process of repetition.⁴⁰ Ideological practice represents the real without breaking away into the self-sufficient totality of science. It is

a system (with its own logic and rigour) of representations (images, myths, ideas or concepts, depending on the case) endowed with a historical existence and role within a given society. [...] [W]e can say that ideology, as a system of representations, is distinguished from science in that in it the practico-social function is more important than the theoretical function (function as knowledge).⁴¹

Althusser’s association of art with ideology was no doubt a vestige of his youthful Marxist practice of “making politics out of all writing, and slicing up the world with a single blade, arts, literatures, philosophies, sciences with the pitiless demarcation of class—the period summed up in caricature by a single phrase, a

³⁵ Althusser, *For Marx*, 166–7.

³⁶ ———, *For Marx*, 167.

³⁷ Alain Badiou, “Le (Re)commencement du matérialisme dialectique,” *La Critique* 23, no. 240 (1967): 449.

³⁸ ———, “Le (Re)commencement du matérialisme dialectique,” 449.

³⁹ ———, “Le (Re)commencement du matérialisme dialectique,” 449.

⁴⁰ ———, “Le (Re)commencement du matérialisme dialectique,” 449.

⁴¹ Althusser, *For Marx*, 231.

banner flapping in the void: ‘bourgeois science, proletarian science.’”⁴² Aesthetic theory also had to be kept to one side of the science/ideology divide in order to maintain the integrity of the dialectical materialist theory of science that Marx provided. As such, Althusser derided aesthetic theory as one of the “*avant-garde*” theories of ideology that

are not strictly sciences but claim to be since they use methods which are ‘scientific’ (but defined independently of the specificity of their presumed objects); which think, like every true science, that they have an *object*, when they are merely dealing with a certain given reality that is anyway disputed and torn between several competing ‘sciences’: a certain domain of phenomena not yet constituted into scientific facts and therefore not *unified* [...].⁴³

Both Badiou and Macherey were determined to show how artistic production differed from ideological production. To this end Macherey distinguished between the artist as “genius” and the artist as a “producer” of the text.⁴⁴ Far from creating the work of art *ex nihilo*, the artist is a labourer historically situated within a particular economic mode of production. Macherey’s criticism is primarily focussed on how literary production presents a distorted reflection of the contradictions inherent in their historically-determined social situation.

As has been shown above, structuralist theories likening music to language laboured under an empirical and interpretative bias. In doing so, they were hard put to explain the changes occurring in post-war serial music as anything other than an aberration of musical norms. Structuralist Marxist theory was similarly sutured to an interpretative bias, despite disposing of a formidable vocabulary to describe processes of production. This may be explained by the literary focus of efforts by Althusser’s colleagues to account for artistic production. Indeed, to a literary critic like Terry Eagleton, Macherey’s project to theorise an aesthetic structure removed from the ideologically given is compromised by literature’s ultimate need to present a narrative situation, however far removed from the social structure that it reflects.

Althusser and Macherey appear to want to *rescue* and *redeem* the text from the shame of the sheerly ideological; yet in these passages they can do so

⁴² ———, *For Marx*, 22.

⁴³ ———, *For Marx*, 171.

⁴⁴ Pierre Macherey, *A Theory of Literary Production*, trans. Geoffrey Wall (London: Routledge and Kegan Paul, 1978), 66–8.

only by resorting to a nebulously figurative language ('allude', 'see', 'retreat') which lends a merely rhetorical quality to the distinction between 'internal distantiating' and received notions of art's 'transcendence' of ideology. It is as though the aesthetic must still be granted mysteriously privileged status, but now in embarrassedly oblique style. If 'real' art is not to be ranked among the ideologies, does it then form a distinct region within the social formation, additional to the Althusserian categories of the economic, political, ideological and scientific? That indeed would seem a considerable—one might think, excessive—privilege to confer on it.⁴⁵

Pierre Macherey's application of Althusser's theory directly posed the question of literary production. Macherey contributed to the seminar leading to *Reading Capital* and collected a series of early articles in *A Theory of Literary Production*. Macherey participated in the charge to wrest literary criticism from the clutches of ideology by identifying empiricist, normative and interpretative fallacies in literary criticism.⁴⁶ In theorising literary production he determined that literature constituted "a break from the usual ways of speaking and writing—a break which sets it apart from all other forms of ideological expression."⁴⁷

Macherey stresses art's capacity, and literature's capacity in particular, to fragment and distort the author's ideological understanding of the world, providing an internal distancing through that may be grasped by the critic. As Macherey describes in his 1964 article "Lenin, Critic of Tolstoy," Lenin's critical method is to consider the literary work in relation to the interrelated historical-materialist and literary histories of its production.⁴⁸ The ideological viewpoint of the peasant defines Tolstoy's historical time.⁴⁹ This viewpoint is distorted, however, by Tolstoy's own aristocratic perspective. His work thus reflects the contradictions of his age, but only partially.⁵⁰ Whereas "bourgeois criticism" is only able to analyse literature with ideological concepts, Lenin analyses the way in which Tolstoy's work "mirrors," "reflects," and "expresses" its age.⁵¹ The mirror does not just reflect, but fragments.

⁴⁵ Terry Eagleton, *Criticism and Ideology: A Study in Marxist Literary Theory* (London: New Left Books, 1976), 84.

⁴⁶ Macherey, *A Theory of Literary Production*, 19.

⁴⁷ ———, *A Theory of Literary Production*, 52.

⁴⁸ ———, "Lenin, Critic of Tolstoy," in *A Theory of Literary Production* (London: Routledge and Kegan Paul, 1978), 106.

⁴⁹ ———, "Lenin, Critic of Tolstoy."

⁵⁰ ———, "Lenin, Critic of Tolstoy," 115.

⁵¹ ———, "Lenin, Critic of Tolstoy," 120.

The literary product is not a mechanical reflection of real objects, but biased reflections of relationships.⁵²

Autonomy of the Aesthetic Process

Since the reflective distance between literature and the ideologically given defines literary production for Macherey, he is unwilling to conceive of a purely artistic form. Without the dialectic of ideology and literature a work of art would be mechanistic and self-reproducing, thus collapsing the difference between the two. Macherey responds directly to Badiou's theory of autonomy in this regard:

Thus it must not be thought that ideology, metamorphosed into art, becomes insignificant and effaces itself as ideology: no more than we can isolate doctrine and judge it for itself, aside, should we privilege the art of the writer, and invoke this art to veil that which gives it substance and meaning. Balzac's novels exist because they are rooted in this double project. We should not be trying to evade this duplicity, but to explain it.⁵³

In "Autonomy," Badiou offers the trite riposte that art does not reflect ideology, but that ideology reflects art. If there is anything that resembles ideology in an art work, it is produced as ideology through a mode of aesthetic production. Badiou believed that Macherey's theory at least provided the basic principle of a specifically artistic form of articulation, as he writes in "Autonomy": "In the metaphor of the visible, of ideology not known but shown, Macherey found the means to indicate, if not operate, the determination of the structural autonomy of the aesthetic process, at the same time as he announced the 'polemical' proximity of art and science."⁵⁴ The "polemical" relationship of science and art refers to their shared characteristic of producing a real from articulated elements.

The logic behind *Antagonisme*'s poetic straw-man is clarified by considering the secondary contradictions of the work as modes of production. The "foundational" and "ornamental" vocabularies of the poet, as well as the rhythm and pitch of the score are not contradictory at all, but rather elements that are articulated *as* contradictory by a particular mode of production. By having the text and music quarrel with one another, Badiou brings a contradiction latent in the structural

⁵² ———, "Lenin, Critic of Tolstoy," 126.

⁵³ ———, *A Theory of Literary Production*, 265.

⁵⁴ Alain Badiou, "Autonomy of the Aesthetic Process," trans. Bruno Bosteels, *Radical Philosophy* 178 (2013): 34.

dissimilarities of text and music to the surface of the work. The mock-quarrel of the intra-textual and musical contrasts then raises the question of exactly how the structures of music and text are produced. Badiou's theory expressed in "Autonomy" raises more questions than it answers. Just what sort of mode of production is Badiou talking about?

Badiou calls the systems by which elements are organised in works "modes of aesthetic production." These include the tonal system, the metrical system of Greek verse and the system of novelistic subjectivity.⁵⁵ Where Lévi-Strauss' "scale" is observed in nature, Badiou argues that a mode of aesthetic production is "transversal" to its medium.⁵⁶ One cannot say that the tonal system is observed in the properties of sound, or that novelistic subjectivity is inherent in writing itself. They are, rather, immanent to the organisation of sound or writing in a particular musical work or novel as "an invariant and invisible structure that distributes ways of linking real elements."⁵⁷ Badiou's final, aphoristic statement of the article suggests an almost musicological programme of investigation based on the notion of the mode of aesthetic production.

The complete intelligibility of an aesthetic mode of production presupposes that one conceives of its *genealogy*; that is to say, the process of the dissolution of the mode, anterior or contemporary to it, whose elements are rearticulated in the mode under investigation.⁵⁸

In this passage Badiou implies that aesthetic practice may lead to ruptures whereby its dominant processes are radically transformed. Though Badiou does not use the term "epistemological break," he is clearly paving the way for a consideration of how such a radical transformation might occur in art, an investigation that would have to wait over twenty years for the appearance of *Being and Event*.

Althusser and "Autonomy"

Althusser was Badiou's "Master" in aesthetic theory insofar as Badiou adopted his notion of semi-autonomous modes of production. Althusser was also a Master insofar as Badiou reacted against his categorising of art as ideology. If Badiou adopted

⁵⁵ ———, "Autonomy of the Aesthetic Process," 38.

⁵⁶ ———, "Autonomy of the Aesthetic Process," 38.

⁵⁷ ———, "Autonomy of the Aesthetic Process," 38.

⁵⁸ ———, "Autonomy of the Aesthetic Process," 39.

Althusser's terms of reference only to transform them, there is some evidence to suggest that Althusser's ideas on art developed in response to Badiou and Macherey's interventions.

Althusser's first revision of his theory of art may be found in the *Three Notes on the Theory of Discourses* circulated privately in 1965. The theory of discourses sought to update Althusser's theory of practices with the Lacanian theory of the subject. In the *Three Notes*, for the first time, Althusser defines aesthetic discourse on a tangent to ideological and scientific discourse. The subject of aesthetic discourse appears through an "ambiguous structure of cross-references" between signifiers.⁵⁹ When the meaning of the work is fixed by a single interpretation it becomes ideological discourse; when it loses all interpretation becomes scientific discourse.

While separating art and ideology, Althusser is effectively espousing Eco's notion of the open work. Eco's critics quickly realised that his theory was essentially one of reception, with little meaningful relation to musical production. The notion of the open work was quickly debated by Barthes,⁶⁰ Macherey⁶¹ and Nattiez.⁶² Nattiez argues that by turning the descriptive idea that works of art have multiple meanings into the prescription that a work is useful insofar as it has multiple meanings is a confusion of the poietic and aesthesic semiological poles.⁶³ The same criticism may be levelled at Macherey's theory of literary production in "Lenin, Critic of Tolstoy." Here aesthetic discourse is also defined as the complex and unstable relationship of the reality it represents. Unlike Eco, this meaning does not rely on interpretation. Rather, "the work has a self-sufficient meaning which does not require to be completed; this meaning results from the disposition of partial reflections within the work and from a certain impossibility of reflecting. The function of criticism is to bring this to light."⁶⁴

Althusser's three notes was immediately criticised by Balibar as no more than some "imprecise enumerations" about the "primary materials" of aesthetic

⁵⁹ Louis Althusser, "Three Notes on the Theory of Discourses," in *The Humanist Controversy and Other Writings*, ed. François Matheron (London: Verso, 2003), 50.

⁶⁰ Roland Barthes, "The Structuralist Activity," in *Critical Essays* (Evanston: Northwestern University Press, 1972).

⁶¹ Macherey, *A Theory of Literary Production*, 80.

⁶² Jean-Jacques Nattiez, *Fondements d'une sémiologie de la musique* (Paris: Union générale d'éditions, 1975), 119.

⁶³ Nattiez directly cites Macherey in 1975, but removes the reference in the 1987 rewriting of *Fondements d'une sémiologie de la musique* as *Musicologie générale et sémiologie* ———, *Musicologie générale et sémiologie* (Paris: Chrisitan Bourgois, 1987).

⁶⁴ Macherey, "Lenin, Critic of Tolstoy," 128.

discourse.⁶⁵ It was necessary to look beyond art as a whole and consider the singularity of different forms of art. Music, for example, is only a language “by analogy.” Though Balibar does not explicitly mention Badiou’s paper, he argues for a “theory of the mode of aesthetic production” such as Badiou had just developed.⁶⁶

Althusser presented another aesthetic theory in 1966, where he appeared to adopt Badiou’s idea that art produces its own real. In his “Letter on Art in Reply to André Daspre,” Althusser argues that aesthetic discourse provides us with something to see, perceive or feel that “alludes” to reality without constituting a scientific knowledge or an ideology.⁶⁷ The “reality” alluded to in the work of art, however, is an ideology.⁶⁸ Therefore, Althusser argues, art does not inhabit a separate reality from ideological experience like scientific structures do. This distinction between “seeing,” “perceiving” and “feeling” the ideological on the one hand and “knowing” it on the other is precisely the difference between art and science. As Althusser writes: “Since art in fact provides us with *something else* other than science, there is not an opposition between them, but a difference.”⁶⁹ Althusser never developed a theory that could have accommodated non-signifying arts such as music, but in this late separation of art from ideology and its comparison with science in terms of its independent mode of production, one can speculate upon his debt to Badiou’s theoretical efforts.

Faith and Rupture

“Autonomy” is ambivalent about how exactly music’s modes of production change. Badiou expresses doubt around Althusser’s formal processes of structural change including epistemological rupture and structural causality. Given Badiou’s ambivalence around this issue at the time, the Sartrean fidelity expressed by the poet in *Antagonisme* can be interpreted as either another ideology to be rejected by the music, or an attempt to speak out of character and propose an alternative source of structural change. Given the importance of fidelity to Badiou’s mature philosophy

⁶⁵ Etienne Balibar, Note sur la théorie du discours, November–January 1966–7, Typescript, Notes, correspondence, and texts from Louis Althusser course 1966–68, Private collection of François Nicolas, Paris.

⁶⁶ ———, Note sur la théorie du discours,

⁶⁷ Louis Althusser, “A Letter on Art in Reply to André Daspre,” in *Lenin and Philosophy and Other Essays by Louis Althusser* (New York: Monthly Review Press, 1971), 222.

⁶⁸ ———, “A Letter on Art in Reply to André Daspre,” 222.

⁶⁹ ———, “A Letter on Art in Reply to André Daspre.”

beginning with *Theory of the Subject*, I err on the side of a prescient break of character.

Althusser's student Étienne Balibar describes how Althusser developed the notion of "epistemological break" from Bachelard's notion of "epistemological rupture."⁷⁰ The term does not denote a diachronic break with a previous mode of thinking so much as a synchronic difference between ideological and scientific thought, as in the layers of Bachelard's vertical time. The confusion between the diachronic and synchronic interpretation of the epistemological break is not helped when Althusser advises the English reader of *For Marx* that he will address a division between Marx's earlier "ideological" works and the later, "scientific" *Capital*.⁷¹ Althusser identifies both a break between ideology and science and a break in the output of Marx himself with, according to Balibar, "excessive" precision.⁷²

To Balibar, Althusser's claim to have developed Bachelard's concept may be a case of "false recognition" and it may be better to say that it is a distinctly Althusserian notion that "owes something" to Bachelard.⁷³ By referring to Bachelard, Althusser was

providing himself with the means of registering and analysing in an explicit theoretical discourse an epistemological "fact" recognised by Marxism itself but still permanently in the grip of the equivocation of philosophical formulations which in fact belong not to Marxist theory but to its ideological "prehistory."⁷⁴

Balibar warns that in adopting Bachelard's notion, Althusser imported with it his ambiguity between materialism and idealism. Bachelard's epistemology would take "revenge" upon Marxism through Althusser's assumption that historical materialism constitutes an epistemological break in the science of history in much the same way as the Greeks opened up hitherto unforeseen horizons for mathematics and Galileo revolutionised physics.⁷⁵ Bachelard's work is taken as an "uncriticised guarantee" of dialectical materialism's novelty as a science of sciences.⁷⁶

⁷⁰ Étienne Balibar, "From Bachelard to Althusser: the concept of 'epistemological break.'" *Economy and Society* 7, no. 3 (1978): 207–37.

⁷¹ Althusser, *For Marx*, 13.

⁷² Balibar, "From Bachelard to Althusser," 218.

⁷³ ———, "From Bachelard to Althusser," 208.

⁷⁴ ———, "From Bachelard to Althusser," 215.

⁷⁵ ———, "From Bachelard to Althusser," 216.

⁷⁶ ———, "From Bachelard to Althusser," 216.

But there is a key difference between Bachelard and Althusser in their thinking of the difference between a new science and what has come before, or coexists with it. While, to Bachelard, epistemological obstacles limit one scientific discourse that must be overcome by another, Althusser extends the epistemological obstacle to include all history and experience under the label “ideology.” Since music was ideological, it was not capable of such breaks itself, but only served as an obstacle to science. If Badiou was to develop a theory of musical autonomy, it had to be capable of an internal rupture.

Badiou’s poet seems to “break character” for a moment in episode J to suggest that music is just such a series of creative historical ruptures.

Antagonisme, J

Je me juxtapose⁷⁷ à ce choix que la musique ignore à force d’inventer ces souvenirs dont je la veux dépendre (...) Toute ville, **et** même si je la rêve, s’inscrit dans la force d’un lieu, arcs de pierre pour y accorder sa juridiction de toitures je vous ai vus, antérieurs de toujours au geste tutélaire du fondateur, **ou de son culte (...)** **Penser, créer, c’est manifester ces contraintes, ce sol de beauté comptable et d’exactitude à quoi se reconnaît ce qui est plus ancien qu’un plaisir d’homme (...)** la musique est l’oubli de ce qui la fonde.

Antagonism, J

I juxtapose myself to this choice that music is not able to invent these memories from which I want to free it (...) Every city, **and** even if I dream it, is inscribed in the force of a place, arches of stone to accord it its jurisdiction of roofs I have seen you, anterior to ever in the tutelary gesture of the founder, **or of his cult (...)** **To think, to create, is to manifest these constraints, this ground of countable beauty and of exactitude in which is recognised what is older than a pleasure of man (...)** music is the forgetting of what founds it.

Figure 15: Alain Badiou, “J,” *Sonate* [*Antagonisme*].

The idea that music could radically break with its own past was of course embraced by Darasse’s contemporaries like Henri Pousseur. In “Outline of a Method” Pousseur argued that Webern’s music may be considered a radical break in the history of music.⁷⁸ Eco commented on this structural preoccupation with change when he makes an important distinction between Lévi-Strauss and the serialists:

If I wanted to affix labels, this is how I would answer: Since Lévi-Strauss believes that beneath every historical process there are natural determining structures, he is a mechanist; and since the serialists admit the possibility that historical evolution might modify, along with the context, the very structures

⁷⁷ A play on the rhetorical gesture “Je me pose” or “I ask myself.”

⁷⁸ Pousseur, “Outline of a Method,” 46–7.

of intelligence and taste, then they are dialectical materialists. But what would be the point?⁷⁹

The point would be that the same ad-hoc philosophical justification of radical rupture was at stake in both the philosophy and music of *Antagonisme*'s time.

Badiou's mode of aesthetic production was autonomous insofar as it was capable of the internal reorganisation of its elements without the impetus of economic or political action. But he is not absolutely committed to the Althusserian mechanism of autonomous structural change, structural causality. In a footnote in "Autonomy" he declares:

The theory of structural causality is still very obscure. My impression is that such a theory is impossible, if one pretends to provide it with formal models. It is to be feared that only regional theories are possible. From this point of view, and different from Althusser, I fear grave difficulties in the 'passage' from historical materialism to dialectical materialism.⁸⁰

This places the mode of aesthetic production in an awkward situation, because while it denies the causality of music's wider problem situation, it does not have a thought-through internal motivation. It is a black box accepted, quite literally, on faith. One would not know this, however, if one did not read *Antaognisme*. While it is hard to know from Badiou's paper what the role of the artist was in artistic change, the enigmatic text of episode J suggests that the artist was esteemed with the role of inaugurating new configurations of musical materials. Episode J thus recalls the Sartrean fidelity of the poet's opening text, after interrupting the piano: "I wanted to invent an order: the tutelary table, the stone, musical under this condition. I wanted to impose a fidelity."

Antagonisme, B

Mais non ! Non. (**arrêt du piano**)

Non. J'explique encore. Je voulais inventer un ordre : **la table tutélaire, la pierre, musicienne à cette condition.** Je voulais imposer une fidélité. Je voulais ... **l'infranchissable en arrière d'un luxe déchiffré**, la fondation sans traces des volutes et chatoiements où l'œuvre se disperse. **Que dire encore ?** Vois la ville :

Antagonism, B

But no! No. (The piano stops)

No. I will explain further. I wanted to invent an order: **the tutelary table, the stone, musical under this condition.** I wanted to impose a fidelity. I wanted ... **the insurmountable behind a decoded luxury**, the foundation without traces of the spirals and shimmering where the work is dispersed. **What more is there to say?** See the city:

⁷⁹ Eco, *The Open Work*, 229.

⁸⁰ Badiou, "Autonomy of the Aesthetic Process," trans. Bruno Bosteels, 39.

aux voiles suspendues ses jardins qui débordent, par dessus tant de petits murs en terre cuite frappés de soleil mauve. Si foisonnante qu'elle soit, vois par dessous, à des profondeurs fondatrices, la pierre exacte dont elle surgit, comme, entre des lierres rouges, un affleurement de signes. **J'annonçais ainsi que la juridiction de l'ordre, qui s'écoute, s'appartient selon sa perte (...silence) scintillante (...silence) jamais musicienne délivre.**

With suspended sails its gardens overflow, above so many little baked earth walls struck by mauve sunlight. As abundant as it is, see below, at its founding depths, the exact stone from which it arises like, between the red ivy, an outcrop of signs. **By this I declare that the jurisdiction of order, which hears itself, is itself by its sparkling (... silence) loss (... silence) that a musician never provides.**

Figure 16: Alain Badiou, “B,” *Sonate* [*Antagonisme*].

At these moments, is the narrator speaking out of character to say something that he could not within the Althusserian frame of his first article, or is Badiou mocking the Sartrean intentional subject?

This is a difficult question to answer, because fidelity becomes a key concept of Badiou’s philosophy after May 1968. The concept is completely absent in the pre-1968 theoretical writings precisely because decision and praxis were absent from the Althusserian worldview. Rather than considering fidelity as something forced upon Badiou on his revolutionary road to Damascus, it was a concern as early as 1955, when he arrived in Paris and mobilised against the Algerian war.⁸¹ I introduced the theme of faith in the form of the “Faith” motif in *Almagestes*, where it is associated with political action. Music, in that case, was credited with being the “prayer” of something outside of it. The motif, constantly disrupted by the aesthetic duplication of the writer, represents the faith of militant action against overwhelming political consensus. The chapter is based upon Badiou’s own experience, where he formed part of 800–900 protesters who would regularly protest against the Algerian war.

We demonstrate, from time to time, boulevard Saint-Michel, shouting “Peace in Algeria!”, and when we get to the end of the street, the police are waiting for us, striking us with their cloaks, and we were joyfully knocked senseless. What is strange is that we could not say anything but this: we have to do it again. And yet, I can tell you this, the “pelerine” cloak is not particularly gay. I even think I prefer to be clubbed. But we had to do it again, because that’s what the pure present is: wanting the end of this war, as few as we were to share this wanting.⁸²

The lesson Badiou took away from the protests was that

⁸¹ Goémé, “Alain Badiou.”

⁸² Alain Badiou, “Philosophy as Biography,” *The Symptom* 9 (2008).

when there is an apparent consensus, even if it is absolutely overwhelming, on retrograde or stagnant ideas, as Zhou Enlai said under different circumstances: “One must dare to go against the grain.” One must dare to go against the grain, one must hold to the discipline of its conviction, be it in total rupture with the thickness of consensus.⁸³

In 1960, Badiou travelled as a journalist to cover a general strike in Belgium. Speaking to the miners and attending their assemblies he became convinced that “philosophy is on that side. ‘On that side’ is not a social determination. It means: on the side of what is spoken or pronounced there, on the side of this obscure part of common humanity. On the side of equality.”⁸⁴ To Badiou, “that side” is also the side of the musician inventing a new way of composing and listening for all against the overwhelming stagnation of musical convention.

Badiou’s challenge to combine a notion of fidelity with a structurally rigorous theory of history was prefigured by Sartre’s *Critique of Dialectical Reason*. In the *Critique*, Sartre had attempted to leverage the similarity between his already-established dialectic of existential subjectivity and the Marxist theory of history. As Badiou remembers, “Sartre’s immense effort revolved around just one question: how can activity, the only model for which is the free individual consciousness, be a collective given? How can we escape the idea that any historical and social reality is inevitably passive?”⁸⁵ The result was a theory where a structure is but a moment in a diachronic process of a group transforming itself through praxis and action.⁸⁶

Sartre’s influence was in presenting Badiou with the fundamental principles of existentialism, the importance of which Badiou explained in a recent lecture on “Philosophy and Biography”:

But what does existentialism mean? It means that you must have a tie between the concept on the one hand and on the other the existential agency of choice, the agency of the vital decision. The conviction that the philosophic concept is not worth an hour of toil if, be it by mediations of a great complexity, it does not reverberate, clarify and ordain the agency of choice, of the vital decision. And in this sense, the concept must be, also and always, an affair of existence.⁸⁷

⁸³ Goémé, “Alain Badiou.”

⁸⁴ Badiou, “Philosophy as Biography.”

⁸⁵ ———, *Pocket Pantheon*, 19.

⁸⁶ Fredric Jameson, *Marxism and Form: Twentieth-century Dialectical Theories of Literature* (Princeton: Princeton University Press, 1971), 269.

⁸⁷ Badiou, “Philosophy as Biography.”

The theme of fidelity gives a clue as to how Badiou expects Darasse's music to exceed the poet's conception. Artistic novelty, though essentially a formal dialectic of works and styles, involves the assertion of new forms of musical order. Darasse moves beyond the game of hiding and revealing statements of the tone row by asserting, along with Messiaen, the musical value of order as such. By composing with the ordinality of musical materials, Darasse is able to completely dissolve and reconfigure the fragmented forms of his competition pieces and the dodecaphonic language.

7. The Charm of Possibilities

This chapter shows how Darasse exceeds the poet's structuralist image of music by confronting serial organisation with Messiaen's technique of interversion. The chapter begins by surveying Messiaen's place in Darasse's musical situation. The chapter asks "What did it mean to engage with Messiaen's music in 1964?" I argue that, while Messiaen was still able to incite scandal, the divisions between the conservative and avant-garde factions of French musical life may not have been as divided as one is led to believe. *Antagonisme* was composed just as Messiaen was being welcomed into the French musical establishment and as Boulez was taking his leave. Through an examination of interversion in Darasse and Messiaen's work, the chapter argues that Messiaen's technique of interversion must be disassociated from the idea of human limitation implied by the "charm of impossibilities" and be understood as a genuine exploration into new, difficult and affirmative musical possibilities.

The chapter argues that the contour-based serial transformations of retrogradation and inversion stand in formalisable relationships to order-based interversions. This argument is aided by mathematical models that illustrate and clarify these relationships. At the centre of these relationships is the ambiguity between retrogradation and interversion. In short, the retrogradation of an interversion can also be heard as a corresponding interversion. An interversion may also be heard as a retrogradation. As is shown, the mathematical models used only partially capture the relationships in question, which differ in important respects from the mathematical models. Darasse plays on the ambiguity between retrogradation and interversion from the large-scale form of *Antagonisme* down to its pre-compositional materials. The chapter then turns to Messiaen's "Reprises par interversion," providing an alternate model for Messiaen's construction of tone rows to that put forward by Allen Forte. In doing so, the chapter shows that both Messiaen and Darasse frequently played on the ambiguity between serial and ordinal transformations at different organisational levels of the work.

To review the problem situation of *Antagonisme*: In the *concours de composition*, Darasse must present a formally diverse work that demonstrates the breadth of his skill as a composer. Darasse's *scène lyrique* in the modernising 1964 *concours de Rome* demonstrated his compositional felicity, as well as his poetic

sensitivity and interest in contemporary musical techniques. Encouraged by his *premier second grand prix*, Darasse uses the *concours de composition* to compose a fully-fledged contemporary work. Serialism is entering a second phase where the thematic unity of the row is being brought into question. It is experiencing something of a *succès de scandale*, with its book-length formulation *Boulez on Music Today* coming under fire from France's star intellectual, Lévi-Strauss. Composers have a choice either to stay and defend the radical implications of the row as a structuring principle, or retreat to higher levels of organisation.

Enter Badiou. Badiou remains committed to the existential subjectivities of his first novel, but must contend with the structuralism of Althusser and Lévi-Strauss. Badiou opposes music and text through an exterior monologue that has the added virtue of distancing himself from Lévi-Strauss' ideology of music parodied in the text. In doing so, he reveals the artificial relation of music and text in the academic test of the *concours de Rome*. From Althusser, Badiou accepts the decentralisation of Marx's economic modes of production, but rejects the association of music with superstructural ideology. He formulates a mode of aesthetic production that autonomously dissolves and rearticulates styles and techniques, but without confidence in structural causality. A belief that Sartrean fidelity motivates structural change in music is professed in *Antagonisme*. But was this another ideology to be refuted by the music? Badiou offers Darasse the opportunity to exceed the text's structuralist image of music through an affirmative reorganisation of the piece's fundamental musical materials.

Messiaen: From *Cas* to *Classe*

What might it have meant for Darasse to adopt Messiaen's techniques in the *concours de composition*? Boulez remembers the charismatic pull of Messiaen's class at the Conservatoire de Paris in the 1940s. "Choosing such a man as master meant, as you can imagine, already isolating oneself from the majority and making oneself out as a rebel [...] ." ¹ Though it seems counterintuitive to scholars today, Messiaen's countercultural aura stemmed in large part from his habit of explaining his music with religious imagery. Where Messiaen's religious glosses are read as apologias today,

¹ Boulez, *Orientations*, 404

they were once considered “the most appalling sacred jargon imaginable” in France.² Messiaen dared to suggest that he could conjure representations of the divine through his idiosyncratic means in what came to be known as “*le cas Messiaen*.”³ As Messiaen argued, “such an act of faith should be expressed by resolutely revolutionary and superhuman sonic means.”⁴ Messiaen was hounded in the press for daring to suggest “a one-to-one correspondence between his intentions and their realization.”⁵ In 1946 *Le Littéraire* wrote that the music world praised the quality of Messiaen’s music while rejecting his textual excesses:

Almost all [...] describe Messiaen as a very great musician of our time. The majority are also in agreement about rejecting all the literature and commentaries which the composer, or certain clumsy exegetes, place around his works, and concur that these do the music a disservice.⁶

Messiaen’s countercultural aura continued well into the 1960s, although the outright scandal of his premières turned to *succès de scandale*.

After a disastrous performance of *Réveil des oiseaux* conducted by Herbert von Karajan in 1959, the conductor thanked the composer, saying “at last, thanks to you, my first scandal!”⁷ Messiaen remembered that the noise in the auditorium at the 1962 Paris performance of *Chronochromie* “was so loud and long that it exceeded the most pessimistic predictions.” Defending the piece before a concert in Munich, Messiaen explained the musical sources of the audience’s grievances. It is clear from Messiaen’s speech that the serial techniques featuring prominently in *Antagonisme* were still a live issue. The subtle permutations of the 32 chromatic durations that underpin both the macro- and micro-organisation of *Chronochromie* were “hardly perceptible to Western ears.”⁸ If his mathematical calculations would not please the public, nor would they, Messiaen admitted, please the avant-garde proponents of aleatoric music and irrational rhythms. Secondly, citing an ancient rift between “urban man and the man of the woods,” Messiaen didn’t expect the urbanised audiences of Paris to appreciate his use of birdsong. Thirdly, his synaesthetic sense of the colour of

² Claude Rostand in Peter Bannister, “Messiaen as Preacher and Evangelist in the Context of European Modernism,” in *Messiaen the Theologian*, ed. Andrew Shenton (Farnham: Ashgate, 2010), 41.

³ ———, “Messiaen as Preacher and Evangelist.”

⁴ ———, “Messiaen as Preacher and Evangelist,” 41.

⁵ ———, “Messiaen as Preacher and Evangelist,” 41.

⁶ *Le Littéraire* in ———, “Messiaen as Preacher and Evangelist,” 43.

⁷ Karajan in Hill and Simeone, *Messiaen*, 234.

⁸ Messiaen in Hill and Simeone, *Messiaen*, 244.

harmony jarred with the expectations of neoclassicists and “old-fashioned dodecaphonists” who preferred the “greyness of the series” alike. Finally, the audience were divided over his use of rigorous permutations and “free” birdsong. Messiaen said that people were “afraid” of freedom, which he saw to “triumph” in his music.⁹ Messiaen was still, in 1962, too rigorous for the new avant-garde turning towards the aleatoric music of John Cage, too free for the old-fashioned dodecaphonists and too complex for the lay-man.

The year 1965 was a turning point in Messiaen’s public reception. Once again, Malraux is behind this transformation. Messiaen’s immense work for an orchestra of woodwind, brass and metal percussion, *Et exspecto resurrectionem mortuorum*, was premièred on 6 May 1965. Messiaen had been approached by Malraux in late 1963 to compose a work to commemorate the dead of the two World Wars.¹⁰ After a series of delays, the work was shown to Malraux on 11 February 1965.¹¹ The first performance was invite-only and Yvonne Loriod recorded a list of past pupils from Messiaen’s class that attended, including Jacques Charpentier, Jean-Pierre Guézec, Paul Méfano and Iannis Xenakis.¹² It is possible that Darasse could have been among the audience, were he not then undertaking the *concours d’essai* of the *concours de Rome* at the Palais de Fontainebleau.

Messiaen was finally appointed Professor of Composition at the Conservatoire de Paris in 1966, the year after Darasse left the class with his second prize. In the December of that year he was also elected to the Académie des Beaux-Arts.¹³ *Antagonisme* was thus composed while the wheels of Messiaen’s transformation into an institutional figure were in motion.

Was Darasse’s use of Messiaen’s experimental techniques a sign that they were becoming canonic, or a daring venture on his behalf? Scholars are increasingly treating Messiaen’s idiosyncratic serial techniques as central to our understanding of Messiaen’s relationship to the musical avant-garde of the period. Indeed, the recognition of such techniques even puts Messiaen’s “experimental” period into question since, as Boulez describes, Messiaen continued to synthesise the techniques

⁹ ———, *Messiaen*, 244–5.

¹⁰ ———, *Messiaen*, 258.

¹¹ ———, *Messiaen*, 260.

¹² ———, *Messiaen*, 262.

¹³ ———, *Messiaen*, 274.

developed during this period with more traditional techniques throughout his career.¹⁴ Vincent Benitez has gone on to show that they may be found from as early as Messiaen's 1930 work *La nativité du Seigneur* to his last works in the 1990s.¹⁵ It is even possible that Messiaen's experimental techniques were considered a welcome alternative to the serialism of Boulez and Stockhausen.

Boulez was becoming an increasingly antagonistic figure towards the French musical establishment. Boulez's disagreement with French officialdom is reflected in his open letter "Why I say 'no' to Malraux."¹⁶ The letter, published in *Le Nouvel Observateur* on 25 May 1966, is a response to Malraux's appointing the composer Marcel Landowski as Head of Music in his administration (a post that previously included both theatre and music), leaving theatre with Émile Biasini and television and radio music with the Ministry of Information. Daniel Durney describes Landowski as "a representative of the conservative fringe of the world of musical composition" who "took up a position alongside the musicologist Jacques Chailly, in opposition to the serial movement and other avant-garde groups."¹⁷ It was not only Landowski's conservatism that troubled Boulez, but the ghettoisation of music as a pursuit separated from other cultural activity.¹⁸ With a cry that will sound familiar to anyone concerned with the alienation of art music within society today, Boulez urges that "[u]se must be made of more general organisms" in the organisation of musical life, be they "exhibitions of paintings," "dramatic performances" or "indeed" (Boulez seems to squirm at the word) "magazines."¹⁹ The administration of music thus required first of all a generalist and last of all a composer.²⁰ Boulez placed himself in a self-imposed exile, announcing "I shall refuse to collaborate with anything that, remotely or otherwise, in France or abroad, depends on the official organization of music."²¹ Darasse composed *Antagonisme* as Boulez stepped out of official French musical life.²²

¹⁴ Boulez, *Orientations*, 413.

¹⁵ Benitez, "Reconsidering Messiaen as Serialist," 269.

¹⁶ Pierre Boulez, "Why I say 'No' to Malraux," in *Orientations* (London: Faber and Faber 1986).

¹⁷ Daniel Durney, "The State, The Creator and the Public," *Contemporary Music review* 8, no. 1 (1993): 5.

¹⁸ Boulez, "Why I say 'No' to Malraux," 441.

¹⁹ ———, "Why I say 'No' to Malraux," 441.

²⁰ ———, "Why I say 'No' to Malraux," 442.

²¹ ———, "Why I say 'No' to Malraux," 442.

²² Boulez was aware of the irony of boycotting French musical life when he was no longer dependent upon it. In his letter, Boulez takes this as a virtue recommending his stance, "There is nothing heroic, in fact, about such a strike, since it by no means threatens my livelihood. It is no secret that I have gone

Given the preponderance of Messiaen's methods in *Antagonisme*, one may ask after Messiaen's personal role in its composition. Messiaen's analysis class presents a paradox for one seeking to attribute lines of influence between Messiaen and his students. Testimonies by Messiaen's students collected by Jean Boivin paint the picture of a relatively conservative historical survey, with little consideration of contemporary compositional techniques.²³ Even though in the 1940s Boulez was able to discuss Messiaen's own music at his informal harmony class and in the street after classes and rehearsals,²⁴ the same may not necessarily be said of Darasse. Until the final year of Darasse's candidature, Messiaen was prohibited from discussing his and his students' contemporary works lest his course impinge on that of Rivier.²⁵ Students have remarked that even after this prohibition was lifted their teacher would barely ever discuss his contemporary music with them.²⁶ As has been argued above, it is more likely that Darasse's relationship to Messiaen was through the French organ school than *la classe Messiaen* and that Darasse became familiar with Messiaen's techniques through the intimate exploration of his scores.

On the other hand, it is hard to ignore the resonance of Darasse's use of interversion and the poet's opening statement in episode B, "I wanted to invent an order" or the line from episode L: "Order and Ornament can no longer be distinguished." Could these phrases have prompted Darasse to use order as a musical parameter as had Messiaen? If so, this implies a strong ideological link between the two beyond the descriptions of interversion found in the *Livre d'orgue*. This chapter shows that Darasse had a sophisticated knowledge of interversion and its fundamental difference to serial processes. Indeed, analysing *Antagonisme* sheds new light on Messiaen's own use of the techniques.

With the exception of some passages in Johnson's *Messiaen*,²⁷ Messiaen's serial techniques have only recently been researched in detail. Perhaps the greatest point of contention in the literature by Forte, Cheong Wai Ling and Vincent Benitez is

to Germany, having been unable to achieve anything on any decent scale in France." ———, "Why I say 'No' to Malraux," 443.

²³ Boivin, *La classe de Messiaen*, 440–42. Darasse would have been exposed to, though not in this order: Machaut, Claude Le Jeune, Monteverdi, Purcell, Rameau, Bach, Mozart, Beethoven, Berlioz, Wagner, Bizet, Moussorgsky, Rimsky-Korsakov, Albeniz, Debussy, Stravinsky, Varèse, Berg, Messiaen and the musics of Ancient Greece, Bali, India and Japan more generally.

²⁴ Boulez, *Orientations*, 405.

²⁵ Boivin, *La classe de Messiaen*, 140.

²⁶ ———, *La classe de Messiaen*, 141–43.

²⁷ Robert Sherlaw Johnson, *Messiaen* (London: J. M. Dent and Sons, 1989).

exactly what Messiaen sought to achieve through his particular methods of ordering pitch, rhythm, articulation and dynamics after his influential “Mode de valeurs.”²⁸ *Antagonisme* contributes to the argument that Messiaen’s experimental techniques were an alternative form of serialism to that of his students at Darmstadt. As Forte writes:

From this historical perspective, it is not too problematic to suggest that in addition to his purely musical motivations for composing *Livre d’orgue* in a highly innovative serial manner, Messiaen had a strong desire to show how serial methods might produce a music totally different from that of the Viennese, and thus stand as a model for the younger generation of avant-garde composers who were so strongly dedicated to serialism.²⁹

From Series to Order

The freedom with which Messiaen uses twelve-tone rows in his serial works has led many to argue that they are in fact modal in character rather than serial. Forte and Johnson have argued that the works of Messiaen’s experimental period stand apart from the serialist works of the Darmstadt school through their free use of tone rows as harmonic resources. Johnson writes that:

In *Livre d’orgue*, Messiaen made frequent use of twelve-note sets in a fashion which was essentially modal and not serial. The free permutation of such sets plays an important role in *Catalogue d’Oiseaux*. [...] Whereas in *Livre d’orgue* the note-sets of this mode usually remain distinct from one another without overlapping, in *Catalogue d’Oiseaux* they most frequently overlap in chain fashion, so that in homophonic passages such as the one at the beginning of ‘Chocard des Alpes’ it is impossible to determine a precise order of notes for each set. The main feature of the mode, however, remains intact. All the notes of the chromatic scale are treated equally so that no one predominates as a modal dominant or final.³⁰

Later on, Johnson writes that:

Twelve-note series are used extensively in *Livre d’orgue* in all except the fourth and last movements. This does not imply that these movements are serial as, except in the fifth, Messiaen uses different arrangements of the notes for each successive twelve-note set. The process is therefore essentially a modal one, the general character of the piece being dependent upon a

²⁸ Forte, “Olivier Messiaen as Serialist”; Wai-Ling, “Messiaen’s Triadic Colouration: Modes as Interversion”; Vincent Benitez, “A Creative Legacy: Messiaen as Teacher of Analysis,” *College Music Symposium* 40 (2000).

²⁹ Forte, “Olivier Messiaen as Serialist,” 5.

³⁰ Johnson, *Messiaen*, 135.

statistical equality that will inevitably arise between all twelve notes of the chromatic scale.³¹

Another way of hearing some of Messiaen's rows in the *Livre d'orgue* is not as a chromatic mode, nor as a series, but as an order. With the hindsight of Messiaen's *Traité de rythme, de couleur et d'ornithologie*, it becomes necessary to take seriously Pierrette Mari's assessment of Messiaen's attitude towards the serial row as an "order."

Serial music, athematic by definition and necessitating much diversity to avoid repetition is, to his eyes, sterile and the rigorous application of its principle has never attracted him. The series is for him neither a mode, nor a tone, nor a scale, but an order.³²

Hearing the serial row as essentially "grey,"³³ Messiaen affirmed a distinct type of musical listening that privileges the sequence or ordinality of musical elements over their contour or cardinality. Whereas tone rows are reduced to their intervallic properties and parsed for symmetries with their transposed, retrograded and inverted cousins, Messiaen privileged the identity of the musical element with its place in a fundamental chromatic mode.

Amy Bauer has hinted at the primacy of the chromatic row as an order or sequence in her analysis of *Chronochromie*. In *Chronochromie*, the immense thirty-two value chromatic mode has one element, the twenty-seventh, that remains in its original order position. Following Lacan, Bauer calls this the "quilting point" of the row.³⁴ The twenty-seventh value, sutured to its position in the original sequence, represents the coincidence of duration and order-value of every other value in the row. It authorises hearing the cardinal durations of the row as ordinals.

Messiaen affirmed ordinality as a way of structuring time alongside the conventional serial parameters of pitch, duration, dynamics, timbre and articulation. Messiaen defends ordinal listening in relation to retrogradation in his *Traité*:

I also take the defense [following René Leibowitz] of retrograde movement, and not only retrograde movement but all the interversions and permutations possible, of which retrograde movement is only one among hundreds of millions of others, and I further single out one rhythmic order: the order of interversions of durations. These are the four most simple senses in which the

³¹ ———, *Messiaen*, 139.

³² Mari in Forte, "Olivier Messiaen as Serialist," 32n.

³³ Messiaen in Hill and Simeone, *Messiaen*, 244–5.

³⁴ Bauer, "The Impossible Charm of Messiaen's *Chronochromie*," 150.

rhythmician can read a succession of durations: straight—retrograde—from the extremes to the centre—from the centre to the extremes.³⁵

In this remarkable passage Messiaen defends retrogradation, but not as the serialists heard it. Instead of the reversal of a sequence of fixed relations, intervals, Messiaen heard retrogradation as a sequence of fixed entities, or pitch classes. Examples from the field of mathematical structuralism are useful in illustrating the difference between the serial and ordinal perspectives on retrogradation.

The serial transformations of retrogradation and inversion may be expressed as a “Klein group” or “four group.”³⁶ A Klein group is characterised by two transformations that obey two laws of composition.³⁷ Firstly, both transformations are involutive. This means that either transformation performed twice yields the initial value, as in the case of a double negative in arithmetic. Secondly, the transformations are commutative. This means that a function *a* followed by a function *b* will yield the same result as function *b* followed by function *a*. In the Klein group below, the retrogradation is represented by the arrows on the top and bottom of the square, while inversion is represented by the arrows running vertically along the sides of the square. The commutativity of the functions is indicated by thick diagonal arrows. This diagram represents a sort of historically-informed philosophical practice. In 1966 Marc Barbut published an article in an issue of *Les Temps Modernes* dedicated to “the problems of structuralism,” showing how the Klein group can be used to represent functions in diverse fields from elementary arithmetic to the grammar of some languages.³⁸

³⁵ Messiaen, *Traité de rythme*, 45.

³⁶ Milton Babbitt remarked upon this composition of serial transformations in Milton Babbitt, “Twelve-Tone Invariants as Compositional Determinants,” *The Musical Quarterly* 46, no. 2 (1960).

³⁷ Marc Barbut, “Le sens du mot ‘structure’ en mathématiques,” *Les Temps modernes* 246 (1966): 797.

³⁸ Babbitt, “Twelve-Tone Invariants,” 253.

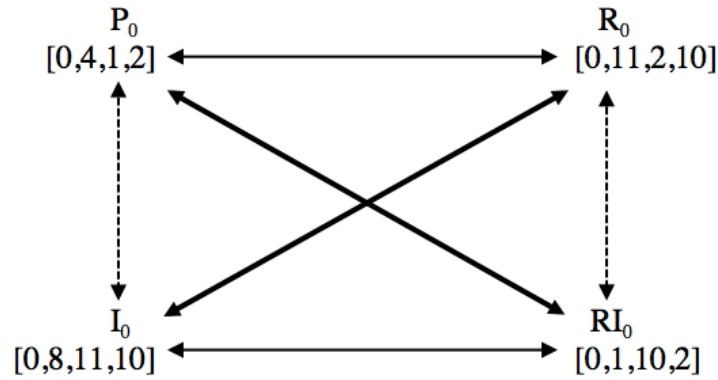


Figure 17: A Klein group of serial transformations.

The Klein group of serial transformations only holds when inversions and retrogradations are performed upon the intervals between pitches, not pitch classes themselves. Note how the rows on each corner of the square begin with the same pitch class, 0. In his defence of retrogradation, Messiaen implicitly concedes, along with Bachelard and Landry, that he does not hear retrogradation in this way. He does not hear a retrograde transformation as an abstract, spatialised shape or contour that is flipped along a vertical axis. Instead, Messiaen defends retrogradation as a permutation of a succession of fixed elements, be they pitches or durations.

Messiaen defends retrogradation as one of the most easily perceptible permutations, along with the permutations “from the inside out” and “from the outside in.” In the “Reprises par interversion” from the *Livre d’orgue* Messiaen calls these permutations “interversions.”³⁹ He calls an interversion from the “centre to the extremes” an “opening fan.” In this interversion, the central value of a row is taken as the starting point of a new row. The next value to the left of the first row is then added to the second, then the next to the right, and so on, until all values have been redistributed.

Prime	0	1	2	3	4	5	6	7	8	9	10	11
Opening fan	5	6	4	7	3	8	2	9	1	10	0	11

Figure 18: An opening fan permutation.

³⁹ Olivier Messiaen, “Reprises par interversion,” *Livre d’orgue* (Paris: Alphonse Leduc, 1953).

A closing fan interversion is produced by beginning with the element farthest to the right of the row and then taking a value from the opposite extremity. This process is repeated until all of the values have been redistributed.

Prime	0	1	2	3	4	5	6	7	8	9	10	11
Closing fan	11	0	10	1	9	2	8	3	7	4	6	5

Figure 19: A closing fan permutation.

Cells smaller than a twelve-value row may also be treated with interversion. When performed upon a three-element cell, Forte calls the transformation a *saute-mouton* or “leap-frog,” because one value leaps over another in the sequence.⁴⁰

Messiaen described several more forms of interversion in his *Traité*, though he privileges the “symmetrical” permutations of opening and closing fans. A first draft of the section “Symmetrical Permutations” of Messiaen’s *Traité* was written, according to Loriod, in preparation for *Chronochromie*, thus “well before 1959.”⁴¹ The draft appears as an annex to volume three of the *Traité*. Messiaen first used interversions in the “Mode de valeurs” of 1949 and developed the idea formally in *Île de feu II* the following year.⁴²

Unlike the twelve transpositions of a tone row, a twelve-tone row may be interverted nine or ten times before the original row is returned, depending on the type of interversion performed (fig. 20). The restricted number of interversions of a row have invited comparison with Messiaen’s modes of limited transposition. Johnson considers the comparatively limited number of interversions an example of the “charm of impossibilities.”⁴³ *Île de feu II* is the only example of Messiaen or Darasse exploring sequential interversions. As argued below, Darasse and Messiaen wanted their interversions to be heard. Sequential interversions, or what could be called “compound interversions,” quickly lose the audible ordinality of their elements.

⁴⁰ The literal translation is “leap-sheep,” as the game is called in French. Forte, “Olivier Messiaen as Serialist,” 14.

⁴¹ Messiaen, *Traité de rythme*, 319.

⁴² Bauer, “The Impossible Charm of Messiaen’s *Chronochromie*,” 148.

⁴³ Johnson, *Messiaen*, 109.

Initial series of durations:		12	11	10	9	8	7	6	5	4	3	2	1
Permutations	I	6	7	5	8	4	9	3	10	2	11	1	12
(‘Interversions’):	II	3	9	10	4	2	8	11	5	1	7	12	6
	III	11	8	5	2	1	4	7	10	12	9	6	3
	IV	7	4	10	1	12	2	9	5	6	8	3	11
	V	9	2	5	12	6	1	8	10	3	4	11	7
	VI	8	1	10	6	3	12	4	5	11	2	7	9
	VII	4	12	5	3	11	6	2	10	7	1	9	8
	VIII	2	6	10	11	7	3	1	5	9	12	8	4
	IX	1	3	5	7	9	11	12	10	8	6	4	2
	X	12	11	10	9	8	7	6	5	4	3	2	1

Figure 20: Nine intervensions from *Île de Feu II*. From Johnson, *Messiaen*, 109.

In his article “Olivier Messiaen as Serialist,” Forte recognises that there are in fact four types of intervension: two types of opening fans and two types of closing fans. An opening fan may begin by taking elements from either the right or the left of the centre of a row. A closing fan may begin from the left or the right of a row. Forte uses the notation “OI₁” for an “outside to inside” closing fan moving from left to right and “OI₂” for a right-to-left closing fan.⁴⁴ “IO₁” is used to refer to an “inside to outside” opening fan moving from left to right (in the case of an odd-numbered row, from the centre to the right) and “IO₂” for a right to left opening fan.⁴⁵ A rule of thumb when reading and labelling intervensions is that the first types of intervensions, OI₁ and IO₁, begin from the left and move towards the right of their parent rows.

A comparison of the four types of intervension and the prime and retrograde rows reveals that each row maintains a retrograde relationship with another. Forte illustrates the retrograde relations of an intervorted trichord in the following figure.

⁴⁴ Forte, “Olivier Messiaen as Serialist,” 16.

⁴⁵ A twelve-value row may have nine or ten possible intervensions depending on the intervension being performed. The OI₁ closing fan will always have the same initial value because it always begins with the first value in the row. The IO₂ opening fan of an odd-numbered series will always have the same final value and the IO₁ opening fan of an even set will always have the same initial value. These permutations make up for their repetition by having one extra possible intervension than their more mobile fellows.

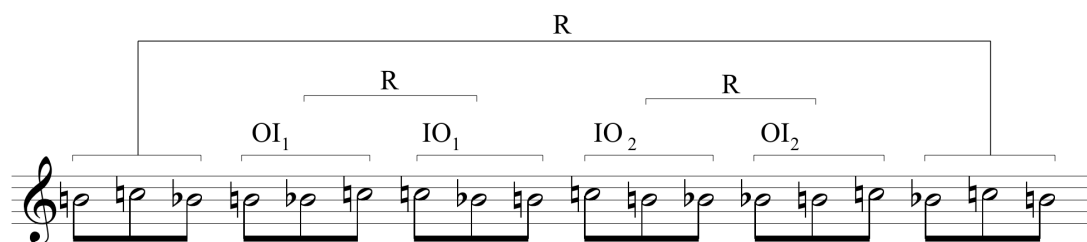


Figure 21: Interventions of a three-element cell. Allen Forte, “Olivier Messiaen as Serialist,” 16.

Forte’s example deviates from Messiaen’s practice by taking an already-interverted trichord as its prime cell. Forte labels the intervverted cells according to their relationship to the prime cell. This approach leaves the retrograde of the prime form floating freely in the group of transformations. Related only by retrogradation to the prime cell, it appears tacked on to the group. Its relationship to the four intervversions is unclear. But we know that Messiaen considered these six permutations to form a rich web of interrelationships. Messiaen recognises the four intervversions and their retrograde relationships in an analysis of *Les yeux dans les roues* from the *Livre d’orgue*. Messiaen writes that out of all the possible permutations of a twelve-value set,

[he] chose six, the most simple, the most immediately accessible, that is to say those that could be possible with three elements: namely, and in this order: direct movement, extremes to the centre, extremes to the centre in retrograde, centres to the extremes in retrograde, centres to the extremes, retrograde movement.⁴⁶

By taking the prime form of a three-element set, its retrograde, its opening and closing fans and their retrogrades, Messiaen distils what mathematicians call the “group composition” (not to be mistaken with the musical technique of group composition) of his six transformations. A clear way to represent the formal interrelationships of the six permutations of a three-element row is to map them according to the axes of retrogradation that Messiaen identifies. A mathematical form that is very useful for doing this is the hexagon of logical opposition.

The hexagon of opposition is a mathematical structure related to the Klein group, but which has three axes of opposition instead of two. Both the Klein group and the hexagon of opposition are objects that mathematicians call “logical bi-

⁴⁶ Olivier Messiaen, *Traité de rythme*, vol. 3, 215.

simplexes of dimension m .”⁴⁷ As Jean-Yves Béziau explains in a recent special issue of *Logica Universalis* dedicated to the hexagon of opposition, the model was developed by Robert Blanché in the 1950s to address certain weaknesses of the square of opposition.⁴⁸ The hexagon has since been used to analyse concepts in a wide range of areas, including economics and music.⁴⁹ I introduce the hexagon of opposition here not because it was an inspiration for Messiaen or because it perfectly represents the relationships between involution and retrogradation. I introduce it because it is the clearest way that I can find to represent involution as Messiaen describes it in natural language. The hexagon is thus a means to an end rather than an end in itself, a form of mathematical structural analysis rather than an immutable mathematical model thrust upon music. My approach resonates with Béziau’s own. Béziau argues that analysis of concepts using a logical hexagon “can be seen as an interplay between linguistic and mathematical structuralisms. We are using a mathematical structure (the hexagon) to understand the meaning of words.”⁵⁰ By retaining the concrete mathematical application of the Klein group, the analysis proposed here is more mathematical than the conceptual analysis of economics or different types of cutlery used as examples by Béziau. There is a pedigree to this disciplinary aberration. Jean Piaget uses mathematical Klein groups and logical squares of opposition interchangeably throughout his *Traité de logique*.⁵¹ As certain inconsistencies in the mathematical analysis betray, this analysis is one of musical transformations as they appear in *Antagonisme* rather than one of a purely mathematical or logical nature.

⁴⁷ For a history of the logical hexagon, see Alessio Moretti, “Why the Logical Hexagon?,” *Logica Universalis* 6, no. 1–2 (2012).

⁴⁸ Jean-Yves Béziau, “The Power of the Hexagon,” *Logica Universalis* 6 (2012).

⁴⁹ See Jean-Yves Béziau, ed., *Hexagon of Opposition*, special issue, *Logica Universalis* 6, no. 1–2 (2012).

⁵⁰ ———, “The Power of the Hexagon,” *Logica Universalis*, 21.

⁵¹ Jean Piaget, *Traité de logique : essai de logique opératoire* (Paris: Armand Colin, 1949).

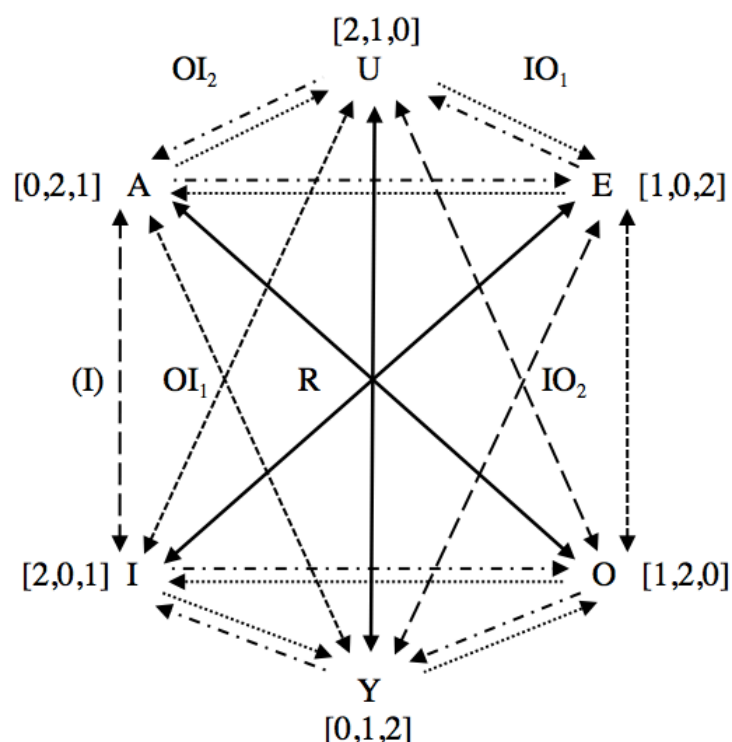


Figure 22: The hexagon of inversion.

The above hexagon maps all of the possible relationships of inversion and retrogradation between the six permutations of a three-element set. The alphabetic labels of each corner have been retained from the hexagon of logical opposition for ease of reference and comparison. The hexagon's Y and U corners represent the prime form and its retrograde respectively. The A, E, I and O corners represent the four inversions of the prime form but also, this time, of the retrograde cell. From a music-analytical perspective, the most important thing to understand is that each type of arrow corresponds to a different way of transforming one set into another. One can quickly grasp from this diagram that each set may be transformed into any of the five other sets through the five possible transformations of a three-element set: retrogradation, IO_1 , IO_2 , OI_1 and OI_2 .

The hexagon of inversion includes retrogradation and inversion, though in order-based forms rather than intervallic, serial forms. Under Messiaen's understanding of retrogradation, retrogradation is performed on the order of the elements, rather than their intervals. Though Messiaen does not mention inversion as a form of reordering, one can see that the vertical axes (A–I, U–Y and E–O) are inversions around the middle value of the set, pitch class 1. One may conceive of

inversion as an order-based permutation where the element taken as the axis of the inversion (in this case, 1) remains in the same position and the two remaining elements are switched.

The central square of the hexagon resembles the Klein group of serial transformations, though with key differences. One side of the square has been inverted, so that the arrows of commutativity would now run along the top and the bottom of the square (between corners A and E at the top and I and O at the bottom). The arrows of retrogradation now run through the centre. The arrows of commutativity are not included in this diagram because order-based inversions and retrogradations do not commute.

Important differences arise between the hexagon of interversion and the hexagon of logical opposition. The inversions running vertically along the sides of the hexagon between corners E and O and A and I are involutive. On a hexagon of opposition, they are relations of implication that are only valid in one direction. The arrow between corners E and O of Béziau's deontic hexagon (fig. 23) may be read as saying that prohibition implies non-obligation, but that non-obligation does not imply prohibition (unless one is being passive-aggressive). The arrow between corners A and I says that what is obligatory is allowed, though you are not obliged to do something permitted (unless one is trying to stimulate GDP, in which case one may urge unnecessary consumption).

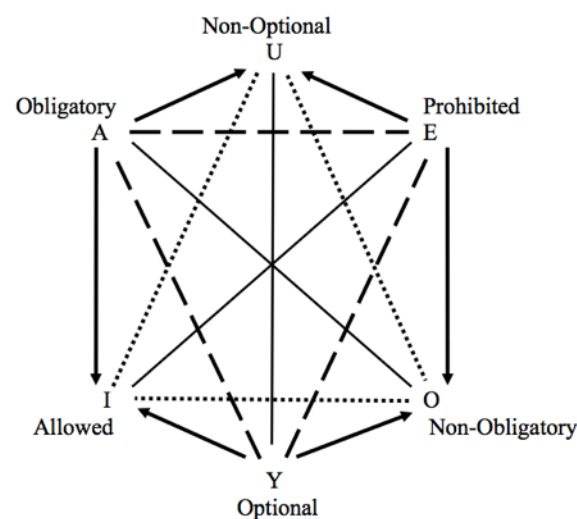


Figure 23: The deontic hexagon from Jean-Yves Béziau, "The Power of the Hexagon," 19.

The composition of the hexagon of inversions is thus more symmetrical than the logical hexagon. This is evident from a comparison of the composition of corners U and Y of the two hexagons. In a logical hexagon, corner Y is the conjunction of corners I and O. In the terms of the deontic hexagon, something optional is both allowed and not obligatory. There is no contradiction between these two properties. Corner U is defined as the disjunction of corners A and E. Something non-optional may be either obligatory or prohibited, but not both. Corners A and E are contradictory. The same relations of logical contradiction and non-contradiction simply do not hold for the hexagon of inversions. The Y and U corners of the hexagon of inversions are both conjunctive and disjunctive. Both corners may be transformed into either of their adjacent corners through different inversions. They are both disjunctive because they may be the product of either of their adjacent corners.

The hexagon of inversions shows that the six possible permutations of a three-element set are overdetermined by retrogradation, inversion and the four inversions. With five possible origins of each set, an incredible ambiguity arises when listening to inversions. Is one listening to a retrogradation or an inversion? To which earlier form of the set is the current set derived? Messiaen and Darasse exploit this ambiguity in their works, particularly when the retrogradation of a whole episode or gesture affects the inversions contained within it. I will now look at how Darasse plays on this ambiguity in *Antagonisme*'s form, episodic construction, figures and precompositional materials.

Form

In his account of the 1965 *concours de Rome*, the critic Jacques Lonchampt noted Darasse's taste for sudden and skilful juxtapositions. He asked whether there wasn't "something a bit chameleonesque in the dexterity with which [Darasse] sews diverse styles end-to-end to finally arrive at a brilliantly dramatic effect."⁵² Lonchampt's criticism puts one in mind of Boulez's criticism of French composers for not developing ideas, just juxtaposing them.⁵³ Darasse's skilful juxtaposition of different musical materials reflects what Keym has recently called Messiaen's "mosaic form."

⁵² Lonchampt, "Un palmarès discutable."

⁵³ Rocco di Pietro and Pierre Boulez, *Dialogues with Boulez* (London: Scarecrow Press, 2001), 21.

⁵⁴ Darasse interrelates the short episodes of *Antagonisme* through intervention and retrogradation.

In neither the *Traité* nor the *Technique de mon langage musical* does Messiaen intervene in the discourse of form to the same extent as he does in that of pitch or rhythm, leading some to accuse Messiaen of “formal failure,”⁵⁵ or an “absence of global perspective of musical form.”⁵⁶ Certainly, anybody looking for the “organic” formal development of Viennese Classicism and its twentieth century inheritors will be disappointed. At first hearing, there may be little musical logic linking each episode together, leading Stockhausen to compare Messiaen’s forms to a tapeworm that could be cut into many pieces.⁵⁷ As Keym shows, one can nevertheless hear Messiaen experimenting with form through “the juxtaposition and frequent recurrence of many short contrasting modules [...] resembling a mosaic.”⁵⁸ Keym traces Messiaen’s mosaic form to the French tradition of refrain and rondo forms and the additive, cumulative forms of Couperin, Rameau, Debussy and Satie.⁵⁹ At the height of his use of mosaic form, Messiaen juxtaposes cells of different musical materials with such strategy that one could propose another rhythmic language for Messiaen’s list: the rhythmic language of rhythmic languages.

Keym divides Messiaen’s experimentation with mosaic forms into three periods. The first includes numerous pieces from the 1930s and 1940s of between four and ten minutes. In these pieces, between two and five section-types or themes alternate between six to twelve episodes. The movement “Fouillis d’arcs-en-ciel, pour l’Ange qui annonce la fin du Temps” from the *Quatuor pour la fin du temps* belongs to this period and proceeds in a manner resembling a double variation, with variations and developments of two themes alternating with each other.⁶⁰ The second period, which spans the 1950s and 1960s, includes longer, single-movement works with much shorter mosaic sections. During this period, Messiaen explores the athematic delineation of forms in the style of group composition or Boulez’s signal and envelope. As Keym writes:

⁵⁴ Keym, “The art of the most intensive contrast.”

⁵⁵ André Hodeir in ———, “The art of the most intensive contrast,” 188.

⁵⁶ Harry Halbreich in Keym, “The art of the most intensive contrast,” 188.

⁵⁷ Keym, “The art of the most intensive contrast,” 190.

⁵⁸ ———, “The art of the most intensive contrast,” 189.

⁵⁹ ———, “The art of the most intensive contrast,” 190.

⁶⁰ ———, “The art of the most intensive contrast,” 190.

The sections types of these works can no more be called ‘themes’, because their main characteristics (which enable the listener to identify a section type and to distinguish it from both its predecessor and following section) often do not rely on the melodic structure, but on other parameters such as texture, timbre and tempo.⁶¹

Keym calls Messiaen’s athematic section types “modules.”⁶² Messiaen’s modules are juxtaposed with an almost complete lack of transition, each module contrasting in as many respects as possible to those around it.⁶³ According to Keym, *Couleurs de la cité céleste*, composed a year prior to *Antagonisme*, is the apotheosis of this second period.⁶⁴

Keym’s analysis provides a useful set of terms for discussing the form of *Antagonisme* (fig. 24). Keym divides the piece into forty-six “sections,” the smallest formal divisions of the piece, which contain a single module or superimposition of modules each. There are 16 modules including five “module material types.”

page	1	2	2– 4	5	6–7	7	8	8– 9	9– 10	11	12	12– 13	13– 14	15	16	16
module	a	b	a	c	d	e	c'	e	d	c'	e	c'	d	e	c'	e
type	bs	bs	bs	pc	bs	cc	pc	cc	bs	pc	cc	pc	bs	cc	pc	cc
strophe	-	-	-	-	strophe 1				strophe 2				strophe 3			
group	I: introduction				II: first main group											

Figure 24: Formal plan of the first two module groups of *Couleurs de la cité céleste*. From Keym, “The art of the most intensive contrast,” 189. Key: bs = birdsong, cc = colour-chords, pc = plainchant, rp = rhythmic patterns, ss = sound symbols.

Throughout this thesis, I have used the term “episode” to describe Badiou and Darasse’s alphabetic division of the work. Figure 23 shows how Darasse uses direct repetition, retrogradation and interverson to interrelate *Antagonisme*’s episodes. Darasse divides the episodes into four distinct modules. Module *a* consists of the two three piano solos: A, D and K. Episode A is a retrograde of episode D (as was argued in chapter four). Episode K then echoes material from episode D. Module *b* consists of the two violin solos. Episode I repeats material from episode F. Module *c* consists of the three subsections of the central *tutti* section, episode G. These are then echoed throughout throughout *Antagonisme* in an opening fan. The final episodes, M and N, form a *coda* to the piece.

⁶¹ ———, “The art of the most intensive contrast,” 191.

⁶² ———, “The art of the most intensive contrast,” 190.

⁶³ ———, “The art of the most intensive contrast,” 189.

⁶⁴ ———, “The art of the most intensive contrast,” 189–90.

Bars	1–7		8–20	21–34	cut	35–37	38–66	67–107	108–35	136–40	141–60	161–65	166–73		174–85
Episode	A		B	D	E	F	Ga	Gb	Gc	H	J	K	L	M	N
Module	a'		c'	a		b	c	c	c	b	c'	a	c'		
Type	A, B, rc, li	n	A, gi	A, B, rc, li		A, B, ir	B, rc	A, gi	FC, li	A, B, ir	B, FC, li	FC, rc, li	B, rc	n	
Relation-ship	Retro-grade of D		Develop-ment of Gb				Central “sonata” that is echoed in interversion in episodes L, C and J.			Recapi-tulation of F	Develop-ment of Gc	Recapi-tulation of D	Develop-ment of Ga		Echoes of all that has come before.

Figure 25: Formal interrelationships of episodes of *Antagonisme*. Key: ir = Indian rhythms, rc = Rhythmic characters treated with irrational rhythms, gi = Global interversion defining the length of the episode, li = Local interversions, A = Serial row A, B = Serial row B, FC = Free chromatic aggregate, n = narrator.

While the episodic density of *Antagonisme* reflects *Couleurs de la Cité Céleste*, Darasse's use of the voice bears comparison with the most complex of Messiaen's mosaic pieces, the opera *Saint François d'Assise*. Keym situates *Saint François d'Assise* in the third stage of Messiaen's exploration of mosaic form. Keym defines the third stage of Messiaen's mosaic form as involving the alternation of vocal and instrumental modules and the use of extremely brief modules. Keym notes that it is "the only instance in Messiaen's oeuvre where his originally instrumental, abstract and non-linear mosaic form is combined with dramatic action."⁶⁵

I am not aware of instances where Messiaen permutes echoes of modules. Like Darasse, Messiaen does use interversions to determine the length or structure of entire episodes, as in "Reprises par interversion." Forte remarks upon Messiaen's unprecedented use of interversion as a formal device in the "Reprises par interversion:"

In the repertoire of twentieth-century avant-garde music, only a few comparable instances can be cited, among them Berg's retrograde permutation of the first section of *Wozzeck* and Webern's nested retrogrades in the second movement of his Symphony Op. 21. Was Messiaen aware of the innovative character of this large-scale manipulation of form?⁶⁶

Whether Messiaen thought of interversion as a process of formal development or not, Darasse saw it as a viable use of the technique. Episodes C and Gb of *Antagonisme* are each defined by a single rhythmic interversion spanning the length of the episode. In episode C (ex. 7), the interversion may be found in the piano part. The bass staff presents a chromatic row diminishing from eighteen to six semiquavers. After every two rhythmic values a B interjects in the treble staff. The B augments in duration from one to six semiquavers. Together, the bass and treble of the piano form an OI_2 rhythmic interversion, with the modification that the decreasing durations are taken two-by-two while the increasing durations are taken one at a time.

⁶⁵ ———, "The art of the most intensive contrast," 199.

⁶⁶ Forte, "Olivier Messiaen as Serialist," 23.

EXAMPLE 7: Xavier Darasse, *Antagonisme*, episode C, bars 8–20.

C Libre ♩ = 104

Vln

Pno

8 14 17

18 17 1 16 15 2 14 13

3 12 11 4 10 9

17 5 8 7 6 6 7 3 2

piz arco reprise jusqu'à... espressivo sul G

pp sul ponticello accelerando

ppp sff pp sff pp

Ped. avant de jouer

In episode Gb, the durations of the global interversion are “minted” [*monnayés*] into shorter values and treated with irrational rhythms.⁶⁷ The same rhythmic interversion is played in canon in the four voices of the vibraphone, marimba and two piano staves. The durations are minted differently in each voice. The difference between the machinic onslaught of sound and silence being greater, Darasse does not mark out the silence with a corresponding tone as he does in episode C. The layered interversions in the four voices result in a dramatic increase in sound density as they reach complete saturation in bars 82–83 (ex. 5). The strings of pitches never reach complete saturation, but break off after reaching a total duration of sixteen semiquavers. The voices then return in rhythmic unison, playing a closing fan of a chromatic scale in groups of notes ranging from fourteen to two semiquavers in size, proceeding by leaps of two semiquavers.

⁶⁷ See the score provided in appendix three, pages 9–10. Messiaen describes *monnayage* using both rhythmical subdivisions and irrational rhythms in Messiaen, *Traité de rythme*, 3:228.

Darasse developed mosaic forms based on different musical materials throughout his later *Antagonisme* compositions and into his next major series of works for solo organ, the *Organum*. From the sketches of the later *Antagonisme* pieces and *Organum*, Darasse shows clear compositional priorities in each episode, sometimes prioritising pitch, at other times rhythm or articulation. In *Antagonisme II* Darasse uses a plan of eleven episodes, including the remnants of *Antagonisme*'s formal plan: the rhythm-oriented central subsections Ca, Cb and Cc. Each episode has a particular compositional priority, such as register, duration, timbre or pitch. The first episode moves through a variety of forms of articulation and texture, such as dotted or undulating, polyphonic, heterophonic or monodic. The finished piece only loosely follows this plan, notably removing episode Cc, which would have focussed on tempo, and adding an episode based on the rhythmic augmentation of phrases and diminution of rests from Gb of *Antagonisme*, as well as a coda.

Episode	Description
A	Dotted Monodic
	Gliding Harmonic
	Struck Polyphonic
	Cluster Homophonic
	Dying
	Immobile Heterophony
	Undulating Melodic
B	Register (high, medium, low)
Ca	Total durations
Cb	Partial durations
Cc	Tempo [removed in manuscript]
D	Timbres
E	Densities
F	Dynamics
G	Attacks
H	Allures
I	Pitches

Figure 26: Xavier Darasse, table from sketch of *Antagonisme II*, Msc38.

Following the *Antagonisme* series, Darasse pursued a series of solo organ works under the collective title *Organum*. In *Organum I*, composed in 1970 for the 1971 Royan Festival, Darasse takes leave of the priorities of musical material, such as rhythm, pitch and timbre, to focus on the materiality of the organ itself. The thirteen-

part plan held at the Médiathèque Hector Berlioz explores registration, timbre and dynamic possibilities that would change from instrument to instrument. Tomas Lacôte argues that the contradiction between notational convention and the diversity of organs on which a piece is played is at the heart of writing for the instrument.⁶⁸ Lacôte finds Darasse grappling with this contradiction in the sketch material of *Organum II* where a pedal will not sound as written or where “registration is thought with transposition.” At these moments, Lacôte writes, Darasse “sought to make of his instrument not a simple vector but a veritable interlocutor” in the history of notation and musical grammar.⁶⁹ The detailed plan of *Organum I* is nevertheless a bridge between the *Antagonisme* and *Organum* series that ends with Darasse’s exploitation of the creative conflict between instrument and notation. Lacôte notes that while *Organum II* is clearly divided into five parts, there is no formal plan in the sketches and the piece appears to fall into a more restrained three-episode form.⁷⁰

Figures

Darasse’s use of retrogradation at the large-scale formal level affects the interventions composing gestures at a lower level of organisation. Episode A (ex. 8) is a particularly good example of the reciprocal effects of retrogradation and intervention at the episode-level. This seven-bar episode is roughly symmetrical, consisting of four repeated gestures.

Gesture *x* consists of two parts: a sustained tetrachord and a faster-moving gesture either sinking from the treble to the bass of the instrument (bar 1) or rising from the bass to the treble (bars 6–7). Gesture *y* consists of two simultaneous *saute-moutons*: one rhythmic and the other arising from the number of pitches heard in each duration. For instance, in bars 1–2 durations of one, two and three semiquavers are presented in an IO₂ intervention. The number of pitches given with each duration presents a different intervention: OI₂. The second statement of gesture *y* is heard in the following bar. In this statement, the durations are not directly proportional as they are in the first statement. Instead, the durations are heard as “long,” “short” and “medium,” with values of six, one and four semiquavers respectively. These rhythms form a OI₂ rhythmic *saute-mouton*, the same intervention heard in the number of pitches of each

⁶⁸ Lacôte, “L’Orgue et les signes.”

⁶⁹ ———, “L’Orgue et les signes.”

⁷⁰ ———, “L’Orgue et les signes.”

duration of the previous statement. The number of pitches heard this time form an IO_1 interversion. Gesture z is recognisable by its high register and symmetrical, non-retrogradable rhythmic filigree. The statements of gesture w in bars 3–5 and 5–6 present short series of dyads with conspicuous examples of chromatic voice leading in contrary motion.

Reading the gestures as they appear in the top staff, the first half of the movement consists of gestures x , y and z . The same gestures are then presented in retrograde order, if one can accept the incomplete statement of gesture y in bar 6. The top staff therefore delineates a symmetrical sequence of gestures. When the remaining two staves are taken into account, then each half of the episode also exhibits a subsidiary symmetrical cell centered upon the non-retrogradable rhythm of gesture z . In the first half of the episode, gesture z separates two statements of gesture y . In the second half of the episode, gesture z separates two statements of gesture w .

EXAMPLE 8: Xavier Darasse, *Antagonisme*, episode Ab, bars 1–7.

Ab Moderato ♩ = 138

Piano

Pno

Réc.

Mais non ! Non ! Non.

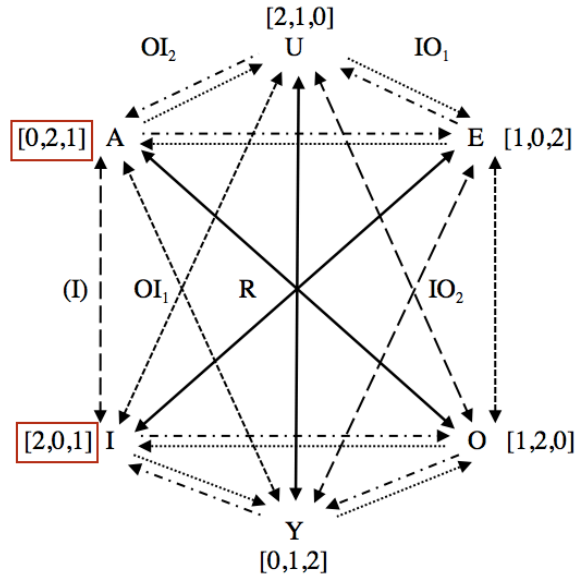


Figure 27: Hexagon of interversion showing the rhythmic interversions of figure y in episode A, bars 1–3.

As shall be shown below, episode A is a retrograde of the “prime” episode, D. The combination of symmetrical and non-symmetrical structures in episode A are affected through their retrogradation from episode D (ex. 9). While episode A is only an approximate retrograde of episode D, the order and pertinent characteristics of each gesture are maintained. The non-retrogradable rhythm of gesture *z* remains largely unchanged, while the contrary-motion voice leading of gesture *w* is clearly reversed. The sinking statement of gesture *x* at the end of episode A springs up violently at the beginning of episode D. The retrogradation of the episode has also now flipped the interversions of the *y* gestures over to the opposite sides of the hexagon of interversion (figs. 27 and 28). They can not only be heard as retrograde forms of their former statements, but also as distinctly different interversions.

EXAMPLE 9: Xavier Darasse, *Antagonisme*, episode D, bars 22–36.

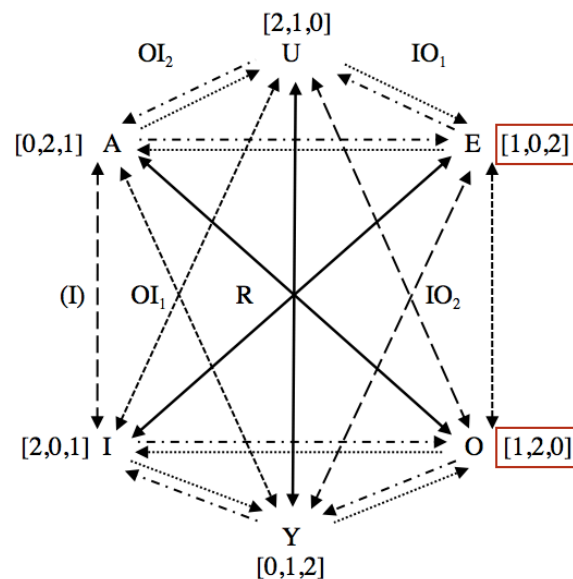


Figure 28: Hexagon of interversion showing the rhythmic interversions of figure y in episode D, bars 30–32.

Precompositional Materials

The retrogradation of gestures and episodes further disrupts the permutational construction of Darasse's tone rows.

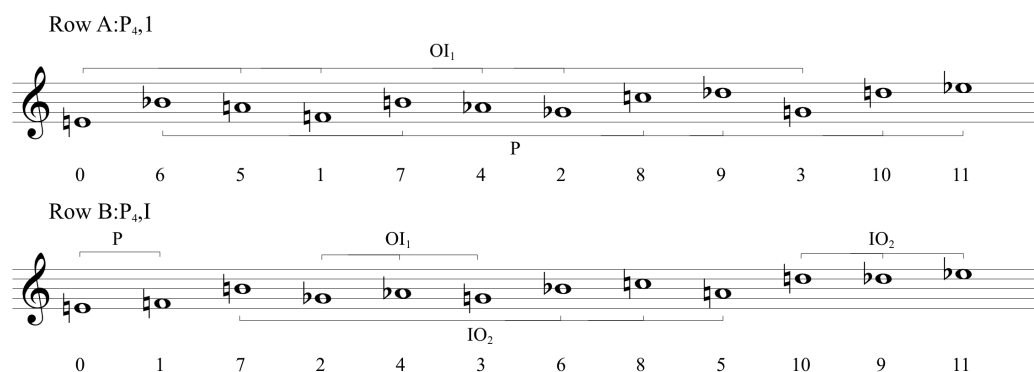


Figure 29: *Antagonisme*, construction of tone rows.

As the above figure shows, both rows of *Antagonisme* may be read as interleaved, permuted partitions of a chromatic row. Row A is constructed from two hexachords. Pitches 0–5 of the chromatic row are given as an OI_1 interversion and pitches 6–11 of the row are given in prime form. Row B is partitioned into four segments of unequal size. The first cell is given in prime form, the second as an OI_1 closing fan, the third as an IO_2 opening fan and the fourth is an IO_2 opening fan.

Return to Messiaen

Analysing *Antagonisme* sheds new light on Messiaen’s own use of tone rows. Like Darasse, Messiaen develops his rows out of permutations of chromatic rows. Messiaen also explores the ambiguity of retrogradation and interversion at different levels of formal organisation. In “Olivier Messiaen as Serialist” Allen Forte offers an analysis of the five secondary rows of “Reprises par interversion” from the *Livre d’orgue* as transformations of an interverted row. Using cyclic notation, Forte finds that Messiaen’s rows do not share the large-scale cyclic permutation of a twelve-tone series, but rather exhibit irregular, cellular permutations. Forte’s method provides a convincing analysis of the relationship of the first two rows. In the following table, the numbers refer to positions in the row, rather than to pitches. Each cell of the cyclic notation is read separately from left to right as a series of positional transpositions:

the element (pitch-class integer) in position 7 of the bar 1 row moves to position 8 in the bar 4 permutation, while the element in position 8 of the bar 1 row moves to position 4 of the bar 4 permutation. Finally, the element in position 4 of the original row, encountering the right parenthesis, wraps

around to position 7 in the bar 4 permutation, completing the cycle of three order positions.⁷¹

Bar 1
0 1 2 3 4 5 6 7 8 9 10 11
(03410119586271)

Bar 4
1 6 0 2 8 3 5 4 7 10 11 9
(784)(91110)(023561) [3 + 3 + 6]

Bar 1
0 1 2 3 4 5 6 7 8 9 10 11

Bar 7
2 1 0 11 9 10 8 4 6 5 3 7
(1)(02)(68)(310594711) [1 + 2 + 2 + 7]

Bar 1
0 1 2 3 4 5 6 7 8 9 10 11

Bar 10
1 10 0 3 11 2 5 9 4 7 8 6
(3)(79)(02561148101) [1 + 2 + 9]

Bar 1
0 1 2 3 4 5 6 7 8 9 10 11

Bar 13
11 0 3 1 7 4 9 5 8 6 10 2
(8)(10)(69)(457)(013211) [1 + 1 + 2 + 3 + 5]

Bar 1
0 1 2 3 4 5 6 7 8 9 10 11

Bar 16
1 7 6 0 3 9 8 2 5 11 4 10
[12]

Figure 30: Cyclic analysis of the six rows of “Reprises par interversion.” Forte, “Olivier Messiaen as Serialist,” 12.

⁷¹ ———, “Olivier Messiaen as Serialist,” 11.

Forte's analysis provides a convincing argument for Messiaen's construction of the first and the second rows through a process of reordering. It appears that to construct the second row, Messiaen divided the first row into a hexachord and two trichords and internally rearranged each cell. The partitioning of the first row to form the second reflects the pitch-grouping of the three tâlas in the first section of the movement.⁷² From here on, Forte's insights become less enlightening. He points out that the second and third permutations include "unary" cycles where a single pitch retains its position. The fourth contains two such cells and each row includes one large, substantially reordered cell, culminating in the single, completely reordered final row.⁷³

The presence of a large reordered cell in each row should be taken less as a pertinent feature of Messiaen's transformations as a suggestion that Forte's account is not properly grasping Messiaen's permutational method. Forte's analysis relies upon the assumption that Messiaen developed the five secondary rows of "Reprises par intversion" from the first, in the style of serial transformations of a prime row. Analysing Messiaen's rows as permutations of a chromatic scale offers more consistent patterns of reordering.

Because it is based on partitions of the chromatic scale, Forte's trichordal parsing of the six rows reveals clearer trichordal partitioning in the first three rows.⁷⁴ The remaining rows, however, are parsed to stress certain chordal characteristics that, while being valuable observations of the sorts of harmonies Messiaen may have heard in his rows, are not intended as explanations of his compositional process.

⁷² ———, "Olivier Messiaen as Serialist," 11.

⁷³ ———, "Olivier Messiaen as Serialist," 11–13.

⁷⁴ ———, "Olivier Messiaen as Serialist," 15.

how partitions of the thirty-two value series of *Chronochromie* are freely inverted.⁷⁵

In the following figure, one can even see how Messiaen modifies his permutations to avoid certain intervals. In the bar ten row, a closing fan permutation is interspersed with the tetrachord [4, 5, 6, 7] in retrograde. Pitch class seven has been rotated to the end of the cell, possibly to avoid a perfect fifth as the first interval in the row. Forte highlights the tritone at the beginning of row four as “a favoured ‘tonic-dominant axis’ in Messiaen’s music.”⁷⁶ The bar sixteen row is constructed by taking one note from each of the four trichords in turn. Here again, the constructive principle has been modified to accommodate the sound of the rows. Messiaen has swapped the final two pitches of the sequence, possibly to ensure a tritone between the first and last notes of the row.

⁷⁵ Bauer, “The Impossible Charm of Messiaen’s *Chronochromie*,” 149.

⁷⁶ Forte, “Olivier Messiaen as Serialist,” 16–17.

Row 1, bar 1

IO₁/OI₂

11 0 10 1 9 2 8 3 7 4 6 5

Row 2, bar 4

R P R

IO₂

0 8 11 10 7 1 2 9 3 6 5 4

Row 3, bar 7

OI₁ IO₂ OI₁ IO₂

10 0 11 5 4 6 7 9 8 2 1 3

Row 4, bar 10

IO₂/OI₁

R (rotated)

0 6 11 1 5 10 2 4 9 3 7 8

Row 5, bar 13

OI₂ IO₂ IO₁

OI₂

5 11 1 0 3 9 4 2 7 8 6 10

Row 6, bar 16

P R

P R

0 3 8 11 1 4 7 10 2 5 9 6

Figure 32: The six rows of “Reprises par interversion” as interverted partitions of a chromatic scale.

This method of analysis serves row five least well. The description of row five offered here is the most consistent with several features of the other rows, but does not in itself provide a compelling case for the row’s construction. Like rows one, two and three, row five shares a *saute-mouton* of consecutive pitches towards its end. This *saute-mouton* “naturally occurs” at the end of the initial closing fan interversion and seems to have been preserved in three of the secondary rows. The fifth row also

shares the widely-dispersed second cell of rows two, four and six. Row six is constructed through the sequential distribution of pitches from each of the four cells.

Hearing Order Again

I believe that Darasse and Messiaen intended these permutations not simply as intellectual exercises, but to be heard. Messiaen and Darasse give the listener every chance to understand the stakes of their experiments. Exposed rhythmic interventions are heard at several points throughout *Antagonisme*, including as early as episode C. The large-scale intervention of episode Gb is unmistakable (see the above analysis in this chapter). Furthermore, the tone rows are each heard unaccompanied at an early stage in the work (see the analysis of the violin solo F in chapter five).

Messiaen and Darasse were at pains to make the upper and lower boundaries of their chromatic scales heard. In rows one, two, three and four of “Reprises par intervention,” the limits of the scale are established by the first three pitches of the first cell. The first pitches of rows one [11, 0, 10] and four [0, 11, 1] suggest their downward and upward closing fans respectively. The first cells of the second [0,11,10] and third rows [10,0,11], on the other hand, suggest continuity between pitches 0 and 11. A sharp ear may be able to hear from the rest of the row that this initial chromatic “turn” defines the boundaries of the scale being reordered. Neither rows five nor six exhibit this initial turn. Row five does, however, share with row six an embryonic form of interleaving trichords. It is possible to hear the row as a bridge from the first four “limit-defined” rows and the interleaving of the last two.

While Darasse does not maintain a mode-defining chromatic turn in his rows, he does not reorder the pitches at either extreme of his rows. Only the interiors of the rows are reordered, maintaining a sense of progression from one extreme to the other. Central to hearing a chromatic row as an order is understanding where it begins and ends. Darasse constructs his tone rows to maintain a sense of a chromatic “centre.” He keeps the extremes of the chromatic scale in place at either end of the rows, signalling that they set the boundaries of the material being reorganised. Once these rows have been established, Darasse does not further invert them. Messiaen was also concerned with the apprehension of his inverted orders, as he wrote in explaining “Reprises par intervention” in his *Traité de rythme, de couleur et d’ornithologie*:

The piece divides into four sections. Sections 2, 3 and 4 are only repetitions of the first, but according to certain forms of inversion or permutation. I chose the simplest forms [of permutation], those most immediately apprehensible: outer to centre, centre to outer, retrograde motion.⁷⁷

In keeping with his desire for audible transformations, Messiaen conceived the retrograde form of the row not as resulting from a series of inversions, but as resulting from a partitioning of an initial inversion. The retrograde set can be constructed from the descending subsets of the inversions of the prime set. Messiaen separates out the retrograde half of a row in this way in the “Mode de valeurs.” In bars 24–28 an opening inversion appears in the first staff. Due to the fixed registration of each degree of the mode, the descending half of the mode [12,11,10,9,8,7] is clearly distinguished from its ascending lower half [1,2,3,4,5,6].

EXAMPLE 10: Olivier Messiaen, “Mode de valeurs et d’intensités,” *Quatre études de rythme*, bars 24–28.

Darasse explores the audible ambiguity of retrograde and inverted forms throughout *Antagonisme*. In episode Gc a rhythmic opening fan is superimposed over its retrograde to produce a simultaneous opening and closing fan in the piano part. As elsewhere in the work, some values are augmented or diminished, but the overall

⁷⁷ Messiaen in Forte, “Olivier Messiaen as Serialist,” 7.

pattern is recognisable. Darasse does not seem to see this as overly disrupting the musical process, probably because one still apprehends the alternating growing and diminishing values.

EXAMPLE 11: Layered interventions in *Antagonisme*, episode Gc, bars 109–13.

* This part of episode Gc appears in the sketches, where the rhythms follow the intervention pattern more closely. In the sketch, the marked durations are 8, 10 and 12 respectively.

^ 12; 4, 9; and 7 in the sketch.

Against Order

While Messiaen and Darasse take care that their use of order may be heard, they are still interested in the intervallic relationships of their permutations. Messiaen developed rows through a liberal partitioning and transformation of cells of chromatic modes. Messiaen’s exploration of intervention was that of a visitor or collector, retrieving moments from this “place” (to use the term from Messiaen’s list of rhythmic languages) and then retreating to other modal or serial places. Darasse’s eclecticism contrasts with Messiaen’s in the former’s clear hierarchy of procedures. Once Darasse established his rows, he proceeded to use them as a basis for serial transformation and “mined” them for intervallic patterns. In another nod to the “charm of impossibilities,” Darasse explores specific sonorities precisely because they cannot be derived from either of his rows.

Darasse seems to have been particularly attracted to the intervallic content of his trichordal partitioning of row B. When given in their prime forms, the trichords of Ga share the feature of a narrow interval of a semitone or tone and an interval greater than a semitone. The following prime-form trichords may be derived from row B:

Trichord	<012>	<013>	<014>	<015>	<016>	<024>	<025>	<026>
Frequency	2	2		1	2		3	

Figure 33: Trichordal parsing of row B.

Of the prime forms of possible trichords based on a semitone, <014> is the only one that cannot be derived from partitions of row B. After playing through a number of chord-types derived from the row, however, Darasse settles on the <014> trichord at bar 41. Darasse's choice of this chord may have been based precisely on the chord's absence from his row.

Row B is not the only pitch-set governing the transposition of the episode's chords. In the bass, dense cluster-chords are transposed over a minor pentatonic scale, emphasising the jazzy character of the major-minor trichords above. Throughout the rest of Ga this chordal plan is extended in the vibraphone and piano, while the violin, vibraphone and marimba weave figures around them. These figures are gradually transformed with the use of irrational rhythms. Individual notes are also augmented and diminished in relation to their neighbours in the style of Messiaen's rhythmic characters. The pitches of the figures of Ga are primarily drawn from row B.

EXAMPLE 12: Xavier Darasse, *Antagonisme*, episode Ga, bars 38–46.

The musical score for Example 12, Xavier Darasse's *Antagonisme*, episode Ga, bars 38–46, is presented in three systems. Each system consists of a Violin (Vln) and Piano (Pno) part. The score is annotated with various musical notations and theoretical labels.

System 1 (Bars 38–40): The Vln part begins with a rest, followed by a series of notes with intervallic annotations: $\langle 0,1,5 \rangle$, $\langle 0,1,2 \rangle$, $\langle 0,1,3 \rangle$, $\langle 0,1,3 \rangle$, $\langle 0,2,5 \rangle$, $\langle 0,1,2 \rangle$, $\langle 0,1,6 \rangle$, and $\langle 0,1,3 \rangle$. The Pno part features a *sempre* *S^{wa}* marking and a *pp* dynamic. Annotations include *B:P₄ I* and *Pentatonic mode <0,2,4,7,9>*.

System 2 (Bars 41–43): The Vln part includes a *pizz* marking and a *p* dynamic. Annotations include *B:P₄ I*, *3:[0,9,2,1,3]*, *1:[4,5,11,6]*, and *B:R₅, R12*. The Pno part features a *2:[2,1,4]* annotation and a *3* (triple) marking. A note indicates "Chords transposed over an OI₁ intervention of B:P₂, III".

System 3 (Bars 44–46): The Vln part includes an *arco* marking and a *pp* dynamic. Annotations include $\langle 0,1,4 \rangle$, $\langle 0,1,5 \rangle$, $\langle 0,1,4 \rangle$, $\langle 0,1,5 \rangle$, $\langle 0,1,4 \rangle$, $\langle 0,1,6 \rangle$, $\langle 0,1,4 \rangle$, and $\langle 0,1,4 \rangle$. The Pno part features a *ppp* dynamic and a *mp* dynamic. Annotations include *B:1₀ invVI* and "Restatement of chords with modified hexachord".

Darasse's gleeful $\langle 0,1,4 \rangle$ chords defy ordinal organisation by reverting to a purely sonorous sound world governed by intervallic relations. Boulez's claim concerning Messiaen rings true for Darasse, that "his formalism is more evident in all matters concerning the organization of time and duration, while his pitch vocabulary shows a much more explicit freedom."⁷⁸ Episode Ga is a conspicuous example of Darasse's efforts to obfuscate not only the work's serial organisation, but also its interventions. We have already seen how Darasse does not complete the pivotal statement of row A in the violin solo of episode F (ex. 3). He progressively alters the pitches of the mechanically-stated rows of episode Gb (ex. 5). He alters durations in the superimposed interventions of episode Gc (ex. 11).

⁷⁸ Boulez, *Orientations*, 416.

Darasse's most radical attempt to introduce disorder into the work is in the pitch material of the piano solo of Gc, bars 108–17. In the sketches, Darasse draws what appear to be random squares of chromatic aggregates (fig. 34). Not all aggregates contain all twelve pitches. He then appears to use these aggregates to fill the pitches of superimposed opening and closing rhythmic fans (ex. 13). I say “appears” because the four voices of the piano part rarely coincide with the four rows of each pitch square. The piano solo of Gc also utilises a mode of dynamics linking each duration, counted in semiquavers, to an undulating series of dynamics (fig. 35).

A	D	G
12 10 7	9 12 8	12 9 10
11 9 6	7 11 6	7 8 11
8 4 5	3 10 5	2 6 5
2 3 1	2 1 4	1 3 4

B	E	H
5 8 12	12 10 9	12 9 8
2 7 11	7 8 4	10 7 11
3 6 10	5 11 3	6 4 5
1 4 9	1 6 2	3 2 1

C	F	I
10 9 12	12 9 11	11 12 9
8 6 11	10 8 5	10 1 8
7 4 5	6 7 4	4 6 7
3 1 2	2 1 3	3 5 2

Figure 34: Xavier Darasse, pitch squares for episode Gc, Msc31.1.

1	2	3	4	5	6	7	8	9	10	11	12	13
<i>fff</i>	<i>ff</i>	<i>f</i>	<i>mf</i>	<i>mp</i>	<i>p</i>	<i>mp</i>	<i>mf</i>	<i>f</i>	<i>ff</i>	<i>fff</i>	<i>ff</i>	<i>f</i>

Figure 35: Xavier Darasse, Mode of dynamics for episode Gc, Msc31.1.

EXAMPLE 13: Xavier Darasse, *Antagonisme*, episode Gc, bars 108–17.

♩ = 176 Les altérations ne valent que pour la note.

Pno

108

A

B

C

112

D

E

F

115

G

H

I

It may be dangerous to claim that there is no system to Darasse’s use of pitch in this excerpt. There may be hitherto undiscovered consistencies between the pitch squares and their hazy representation in the score. The excerpt is nevertheless a limit case in Darasse’s obfuscation of his carefully-ordered pitch materials.

Conclusion

In this chapter I have shown how Darasse played on the ambiguity between serial listening and ordinal listening in *Antagonisme*. In doing so, Darasse demonstrates a sophisticated understanding of Messiaen’s technique of interversion. Darasse uses interversion to interrelate episodes in a form resembling Messiaen’s mosaic forms. Like Messiaen in “Reprises par Interversion,” Darasse retrogrades movements and figures, affecting the interversions contained in them. At the micro-level, Darasse’s two tone rows are constructed through permutations of a chromatic scale. I have shown that the six rows of “Reprises par interversion” may also be analysed as permutations of a chromatic scale, not as permutations of an originary interversion as Forte suggests. What does this mean in context? This study suggests tantalising historical possibilities, however the path from analytical observation to meaningful contextualisation is fraught with problems of intentionality. *Antagonisme* suggests a strong but unsubstantiated pedagogical link between Messiaen and Darasse. Did Messiaen maintain a closer pedagogical relationship with his students than previously

thought? As I have argued above, Messiaen was not known for discussing his own compositions with his students and so Darasse could have learnt intervention from the *Livre d'orgue*. On the other hand, to wield the philosophy behind intervention well before Messiaen's writings had been published implies a closer connection.

Darasse exceeds Messiaen's practice by using both intervention and the transformations of inversion and transposition proper to serial technique in the same work. As the listener or music analyst, one is forced to choose which compositional priorities to focus on. There is no testimonial evidence to suggest that Darasse was mounting a live clash of modes of aesthetic production. Even if Darasse were not familiar with "Autonomy," his coincidental confrontation of two modes of composition corroborates Badiou's theoretical model. The following chapters open the thesis out to discuss the broader methodological and philosophical implications of this analysis. Questions of intentionality and musical innovation become urgent when preparing a score of *Antagonisme*.

8. Preparing the Score

The score provided in appendix three represents Darasse's most developed musical response to Badiou's text, as it is identified throughout the preceding analysis. In this chapter, the merits of three possible editions of *Antagonisme* are evaluated. Each edition reflects a particular stage of composition that might be considered complete in its own right.

1. The first stage is represented by the fair copy manuscript Msc31.2. This manuscript includes a series of replacement pages that were included later and are omitted from consideration at this stage. Even in this "complete" score the violin solo, episode E, has been crossed out. This state of the manuscript may be considered the most complete copy-text available. This stage will be discussed in regard to positivist musicology, in particular that of Arthur Mendel. I argue that Mendel's so-called positivism is more nuanced than previously thought, in particular through reference to his use of Popper's principle of falsifiability.
2. The second stage represents the version that was performed and includes several large cuts and revisions. These changes appear to have been made in a great hurry, with episodes D, F and I receiving replacement pages that are collected at the end of the manuscript score and the relevant performance scores. Episodes A, B and C are also entirely crossed out in the performance scores. This stage of composition may be said to represent the composer's "final intentions," but whether it represents the author's free, uninhibited intentions is another matter. Furthermore, these changes introduce significant inconsistencies into both the text and the music.
3. The third stage is the least represented among the manuscript materials, but is the one chosen for presentation in appendix three. It solves the musical and textual inconsistencies introduced by the deletion of episodes A–C by retaining the episodes, but includes the modified versions of episodes D, F and I. This introduces new musical inconsistencies between the revised episode D and the original version of episode A. I then include a revised version of episode A from the sketch material that agrees with the pitches of

the revised episode D. This score, it is argued, represents the composer's most complete musical response to the text, while not necessarily representing either his final intentions or any empirically-given form of the work.

This chapter argues that the above scores fall prey to positivist and intentionalist fallacies that one simply cannot escape. Instead, aware of the pitfalls of critical editing, a score must be constructed that is both intellectually honest and fulfils the aims of the edition. In returning to key texts of positivist musicology, I found that nuanced and self-aware editing methods already existed. Much of this chapter is thus dedicated to a revisionist reading of Arthur Mendel and Karl Popper, whose work has similarly been misread as bluntly positivist. My defense of Mendel and Popper revolves around the distinction between verification and falsification. The musicological literature often conflates the two, leading to a caricatured understanding of the purpose of empirical studies.

Popper's principle of falsification conflicted with the positivist principle of verification by shifting focus from the confirmation of statements to demarcation between statements. Scientific statements, Popper argues, could be demarcated from non-scientific statements by asking whether they could possibly be contradicted.¹ Firstly, Popper's distinction was not intended to prohibit statements in science that could not be empirically verified through seeing, smelling or touching, but only to prohibit statements that could not, in their very structure, be falsified. Secondly, Popper was writing about science, not history. This is a fact that positivist musicologists were aware of.

Arthur Mendel, Falsificationist

Mendel's influential 1961 lecture "Evidence and Explanation" was one such attempt to distinguish between which musicological questions should be subject to scientific standards and which should not. Mendel does not condone a naïvely verificationist perspective wherein only those statements that can be empirically verified should be permitted in musicological discourse. Instead, Mendel proposes a nuanced approach requiring a "thick" historical explanation of the work, only some statements of which can actually be empirically verified. All statements of the explanation, however, should pass the test of falsification. That is, they must be phrased in such a way that

¹ Popper, *The Logic of Scientific Discovery*, 312–13.

they could be proven false under the right conditions. Such a methodology, I argue, is the only one appropriate to preliminary research on a mid-twentieth-century work.

Taruskin describes positivist musicology as bound to statements based in empirical data. He considers positivist musicologists as holding that “what you cannot see or hear or touch or taste cannot be said to exist, and cannot support ‘evidence’ to support belief.”² He goes further to argue that Mendel’s musicological practice thrived directly in the shadow of the “neopositivist” (but more accurately logical empiricist) philosopher Carl Hempel.³ In his generalisation of positivist musicology, Taruskin is in fact producing a straw theory that he forgets when it is expedient for him. Faced with Leo Treitler’s own caricature of positivist musicology, Taruskin is quick to distinguish between “good,” falsificationist and “bad” verificationist positivists.⁴

Treitler’s savaging of Mendel is perhaps the most unwarranted. Reading Treitler, one would imagine that Mendel presented an arch-empiricist dismissal of any and all historical statements that were not arrived at by observation of extant scores and materials, a condition that Treitler rightly observes would lead to any real historical understanding being “hardly possible.”⁵ Mendel’s paper is anything but a cold defence of empirical methodologies. To the contrary, Mendel is clearly one of Taruskin’s “good” positivists, advocating judgment in the face of the contingency of empirical knowledge.

Mendel’s lecture begins with a summary of Philipp Spitta’s momentous errors in his chronology of the works of J. S. Bach.⁶ He then proceeds to summarise and pick apart R. G. Collingwood’s ideal positivist-historical methodology. The positivist historian’s theses, Mendel argues, are at best statements of “statistical probability.”⁷ They only hold until better sources come to hand.⁸ The paper’s final message is a statement of the fallibility of positivist historicism that in no way advises bunkering down into ever-restricted circles of inquiry.

² Richard Taruskin, *Text and Act: Essays on Music and Performance* (Oxford: Oxford University Press, 1995), 43.

³ ———, *Text and Act*, 43.

⁴ ———, *Text and Act*, 27–30.

⁵ Treitler, “The Power of Positivist Thinking,” 393.

⁶ Arthur Mendel, “Evidence and Explanation,” Report of the Eighth Congress of the International Musicological Society, 1961, New York, 1962.

⁷ ———, “Evidence and Explanation.”

⁸ ———, “Evidence and Explanation.”

The more general, the more significant the explanation we advance, the less stubbornly we should cling to it, for the more surely it will be incomplete, the greater will be the proportion of its fictive content, the more surely it will be at best the outline of an explanation—a program for further research.⁹

Mendel concludes that we should “teach our typewriters” (add an automatic header in contemporary parlance) to write atop every page Oliver Cromwell’s warning “I beseech you [...] think it possible you may be mistaken.”¹⁰ This would make a fine comeback to Treitler’s criticism of positivist musicology’s claims to empirical knowledge: “Empiricism has not guaranteed verifiability, for there is no immaculate perception.”¹¹ Mendel’s discussion of Popper should have been enough to alert the audience to the falsificationist method being proposed.

Verifying *Antagonisme*

The bad press of positivist musicology and critical editing is no doubt fuelled by the significant amount of crawling, empirical work that goes into establishing the basic facts of one’s study. An editor might begin by choosing a copy-text from among the extant scores of a work, that is, a single early published or manuscript source that is then only modified where obviously erroneous.¹² In the case of *Antagonisme*, one may choose the manuscript copy of *Antagonisme* or the identical score submitted to SACEM.¹³ However, the series of significant rewritings and deletions made prior to the work’s première complicate the matter. Certainly, a strictly verificationist musicologist could not allow the inclusion of sketch material in the score proposed in the third stage of composition outlined above. The sketch of the rewritten episode A is not only absent from the most complete score, it is also absent from the most advanced stage of the composition, the performance scores. The third stage, which included the deleted episodes A–C and sketch material can barely be said to exist.

⁹ ———, “Evidence and Explanation.”

¹⁰ ———, “Evidence and Explanation.”

¹¹ Treitler, “The Power of Positivist Thinking,” 376.

¹² W. W. Greg, “The Rationale of Copy-Text,” *Studies in Bibliography* 3 (1950): 19.

¹³ Score of *Antagonisme* submitted to SACEM, Msc31.6.

Thankfully, such strict conditions need not be met under Popper's principle of falsification, which simply demarcates between scientific and unscientific statements.¹⁴ Mendel's paper dondones Popper's view against the positivists.

But to include among the resources on which the historian must draw not only knowledge and analytic power but insight and imagination is to state that history consists not only of what we 'know and can prove' but of what we feel and imagine and cannot prove. When we look closely even at what we say we 'know and can prove' we invariably find that we don't quite know it and can't quite prove it. Even the most universal, scientific 'laws of nature' are true only until proven untrue.¹⁵

Should one then abandon the careful scrutiny of musical sources? All that is required is that the musicologist in the first stages of editing a score acts as a responsible member of a community by positing a hypothesis that may be disproven. If there are some loose strings in one's description, then no harm is done. The priority is one of the long-term usefulness of one's research. Mendel takes the fallibility of scientific knowledge as "[a]ll the more reason why [historical and musical] structures will not stand long if we have not taken account of all the available relevant facts, and have not carried strictly logical reasoning from them as far as it will go."¹⁶

Besides his Popperian method, Mendel also exhibits a qualified-Platonist conception of the musical work. Mendel's Platonism first appears when he claims that, unlike in the case of military and political histories, the "deeds" of music history are still with us in the form of scores.¹⁷ The "deed" is not confined to the score, however, but exceeds the musicologist's best attainable knowledge of it. Mendel holds that analysis does not constitute a totalising knowledge of a work.¹⁸ The reality of the musical work can be contrasted to that of a historical figure, which is but the "merest abstraction" to the historian.¹⁹ Mendel's conception of the work is therefore far from Taruskin's caricature of the positivist who thinks that "Josquin des Prez's motets cannot be seen or touched, but a manuscript containing them, regardless of who actually may have inscribed it, is present to our senses."²⁰ It was Mendel who claimed that musicology differed from other disciplines precisely in its passion for works as

¹⁴ Popper, *The Logic of Scientific Discovery*, 312–13.

¹⁵ Mendel, "Evidence and Explanation,"

¹⁶ ———, "Evidence and Explanation,"

¹⁷ ———, "Evidence and Explanation,"

¹⁸ ———, "Evidence and Explanation,"

¹⁹ ———, "Evidence and Explanation,"

²⁰ Taruskin, *Text and Act*, 43.

“individual structures and objects of delight.” Does this mean that Mendel perpetuates a myth of the musical work created by a genius and thereafter divorced from the context of its creation, sailing through history complete and immutable?²¹ To the contrary, nobody was more certain, especially after the Spitta debacle, of the obscurity of the traces of musical activity. Mendel’s Platonism is thus qualified by his method, which accepts the limits of our empirical access to works.

Treitler’s use of positivism as a straw theory is necessary to support his principal criticism of Kerman’s much gentler rebuke of Mendel in *Contemplating Music*. Treitler refuses to acknowledge that there is anything in the positivist musicological programme that would lead to a promised second stage of interpretative, critical activity.²² Treitler’s belief, following Jerome McGann, that editing is a critical activity in itself is something that the editing of *Antagonisme* corroborates. However, there are moments that require greater critical judgment or scientific rigour than others, moments that critical editors usefully divide into “accidentals” and “substantives.”²³

The sorts of differences between the versions of *Antagonisme* discussed above significantly alter the author’s meaning or expression. These W. W. Greg, in developing the notion of copy-text, called “substantive” changes.²⁴ In a musical score, aspects of the presentation of the text including word spacing and certain forms of punctuation are substantives where they would be accidentals in a text. For instance, as was discussed in depth in chapter four, Darasse’s precise placement of the words on the narrator’s stave sometimes appears to be very precise, whereas at other times the text appears to proceed less strictly in time with the music. For instance, in bar 22 Darasse places the word “*exacte*” directly underneath two quick chords. The text of this episode, which consists of fragments of the core text, is spaced irregularly across the stave, implying that the words ought to be spoken at very precise moments. A line in the piano performance score indicates that the words “*luxe si peu*” ought to be spoken after the piano’s initial gesture. Another marking in the conductor’s score indicates that the text in episode Ga ought to begin at the apotheosis of the piano’s sweeping arc in bar 52. The markings from the performance scores are given here as dotted lines. The rest of the text in episode G, consisting of a long crescendo, appears

²¹ Lydia Goehr, *The Imaginary Museum of Musical Works* (Oxford: Oxford University Press, 2007).

²² Treitler, “The Power of Positivist Thinking,” 380–81.

²³ Greg, “The Rationale of Copy-Text,” 21.

²⁴ Greg, “The Rationale of Copy-Text,” 21.

to flow along relatively freely (exceeding the length of the stave at certain points) until it coincides with the climax at bars 83–84. The placement of the text from bars 61–82 may thus be treated as accidental. When typesetting the text I have tried as far as possible to represent Darasse’s placement of the text, except where the musical goalposts appear to be further apart. The performer ought, generally, to respect the position of the beginnings and endings of phrases, while taking liberties with the delivery of the intervening text. At times, considerably more judgment will have to be used, such as in bar 36, where the words “*c’était notre royaume selon*” are printed across eight and a half seconds of violin music before landing on the line reflected in the violin part “*rythmes-unique-timbre, intensités.*”

The large-scale structural changes discussed above are perhaps extreme examples of substantive alterations. More commonly one might speak of the removal or false transcription of a single word in a text. There are many examples of such changes in the transmission of Badiou’s text to the score, which have been marked out in the text given throughout this thesis and in appendix two. Darasse’s deletions appear to have been made for the sake of brevity, targeting moments of philosophical elaboration and maintaining the core of Badiou’s text. As such, they show Darasse’s awareness of the theoretical stakes of the work. That said, Badiou’s moments of elaboration greatly clarify his philosophical intentions and are vital to an intellectual-historical investigation.

Identifying the accidentals of the text—elements of spelling, grammar and presentation that do not affect the text’s meaning—requires varying degrees of judgment that may differ in a musical context from a literary one. Where obvious errors have been introduced in transcribing the text to the manuscript and performance score, the accidentals of the fair copy have been respected. However, changes of spelling that would be considered absolutely substantive in a literary text may be considered accidental in a musical text where an identical performance will result from either spelling. The transcription of the plural “traces” as the identically-pronounced singular “trace” may have no tangible effect on the performance of the work. For one interested in the meaning of the work as a written document, such corruptions of spelling would certainly count as substantive changes. On the other hand, punctuation and emphasis that affects the performance of a text without affecting its meaning may be considered accidental in literature and substantive in music. The several underlined words in the manuscript that are written without

emphasis in the score would count as substantives. Though in the manuscript the phrase “rythmes unique timbre” is not hyphenated, the words are hyphenated in the narrator’s score, reintroducing a liaison or running-together of the words found as a technical direction in the draft.

Intending *Antagonisme*

The weight of sketch material and performance scores of *Antagonisme* requires that one reject the strictly positivist notion of copy-text editing for a more eclectic edition. The notion of copy-text and substantive and accidental variants were, after all, developed for the editing of already-published renaissance literature. Greg, unlike editors working on later literature such as Fredson Bowers and Thomas Tanselle,²⁵ had little access to evidence of authorial intentions that might have helped separate substantives from accidentals and typesetters’ errors from authoritative modifications. But nor can another common editorial method, that of Tanselle and Bowers’ ideal of the author’s “uninfluenced” or “unconstrained” intentions prove a guide through the editing of *Antagonisme*.²⁶

Since the second version of the score represents a later stage of composition than the first, and so a more developed state of Darasse’s compositional intentions, perhaps the performance scores could be taken as the basis for an eclectic edition. It is likely, however, that Darasse’s modifications were not the result of a “free” creative process, but were the products of circumstance. It is likely that Darasse’s modifications were made in relation to ensure that the work met time constraints. In the sketch material, Darasse’s calculations on a plan of the entire work comes to 13 minutes and 10 seconds.²⁷ Darasse rules a dark line underneath section F, leaving 9 minutes and 40 seconds of music and spoken text. The version performed that included the modified episodes D, F and I would have taken precisely 10 minutes, taking into account Darasse’s estimates for the durations of the spoken parts. It seems likely that the last-minute changes were made in the interest of time at the expense of the large-scale architecture of the work and the text. An alternative hypothesis may suggest that Darasse preserved *Antagonisme* in the interest of returning to it without time constraints. This hypothesis is a classic case of Mendelian over-reach. The

²⁵ G. Thomas Tanselle, “Editing without a Copy-Text,” *Studies in Bibliography* 47 (1994); Bowers Fredson, “Greg’s “Rationale of Copy-Text” Revisited,” *Studies in Bibliography* 31 (1978).

²⁶ G. Thomas Tanselle, “Historicism and Critical Editing,” *Studies in Bibliography* 39 (1986): 19.

²⁷ Drafts and sketches of *Antagonisme*, Msc31.1.

papers from the Conservatoire de Paris concerning the 1965 *concours de composition* are not currently available for consultation, as they have been deposited with the Archives Nationales, but not yet processed. With no clear evidence either way, one is caught in a dilemma of authorial intentions that must be resolved with a judgment of the musical value of the various possible editions.

Popper's three worlds help clarify the relevance of authorial intention in critical editing. While important, the psychological state of the composer, of world two order, should take a back seat to musical problems of world three concerns. In history, Popper criticises Collingwood for laying too much stress on the mental re-enactment of the political context in which a political edict was written. Popper's main interest is the analysis of the problem situation.²⁸ Popper would thus disagree with Skinner's "strong solution" to the history of ideas—that of developing as detailed a picture of the context of a philosophical work so as to explain the various conditions contributing to the text's production. Skinner's strong solution overdetermines the text by finding as many contributing causes as possible, be they social, political, or dietary. By backgrounding the theoretical problems at stake in a philosophical work, Skinner's strong solution becomes a sort of physical determinism with the attendant danger of simply missing the point. Popper uses a musical example to contradict physical determinism. He imagines a physicist who could compose a piece in the style of Mozart or Beethoven by studying the movements of the composers and their environments and predicting where they would mark their paper at any given moment. Though the physicist may come to a sophisticated understanding of how the weather affects the composers' sonata forms and perhaps even the rules of counterpoint and harmony, his understanding of the music would be significantly different to that of the composers. The composers would be dealing with a variety of changing musical problem-situations, their acquired tastes and the effects of fortuitous "wrong notes" that they decided to keep.²⁹ Popper makes his physicist profoundly deaf to emphasise the point that, by relying upon a variety of seemingly-unmusical factors to compose, he would miss the critical reasons why Mozart and Beethoven composed the way they did.

I do not see why Popper's physicist need be hearing impaired to misunderstand musical problem situations. Historically-informed performance

²⁸ Popper, *Objective Knowledge*, 188.

²⁹ ———, *Objective Knowledge*, 254.

practice seeks precisely to remedy decades of naïve performances.³⁰ Historically-informed performance practice asks how, among other things, instruments and physical gesture formed part of the problem situations of particular works. To this end a deaf physicist may uncover a great deal about a work's problem situation just by observing on which instrument it was composed and how it was played. Seeing as Popper includes dance and feats of engineering among the inmates of world three, it is no great stretch to include musical instruments and performance gestures as well. However, expanding the musical inhabitants of world three does not get rid of the core problem that, while the physicist will understand a great number of causes of Mozart and Beethoven's works, they will not understand how the composers responded to instrumental, technical and stylistic problems bequeathed to them through a series of instruments, scores, pedagogical exercises and performances hidden from the physicist's view.

An argument for the preservation of *Antagonisme*'s deleted episodes could be mounted on the basis of their musical construction, a judgment that could be made independently of Darasse's intentions. Such an "immanent" understanding of the value of texts was pioneered by the New Criticism in literature, though music analysts have long been in possession of advanced models of immanent musical analysis. Against the caricatures proposed by Treitler and Taruskin, the new critics' qualified notion of autonomy provides an ethos that may be applied in musical analysis.

While mid-twentieth-century musicology turned in headlong flight towards textual editing, literary critics were forging new interpretive paths through the "text itself." Between the World Wars and particularly after the Second World War, Anglophone disciplines turned away from the historicism, biography and positivism of the pre-war period and towards objective analytical methods. New Criticism in literature introduced the practice of "close reading," that is, "explicating texts in a vacuum."³¹ Along with the new critics' critical tools came a set of prohibitions on pre-war critical approaches, including the "intentional" and "affective" fallacies,³² as

³⁰ Clive Brown, *Classical and Romantic Performing Practice: 1750–1900* (Oxford: Oxford University Press, 1999).

³¹ Gerald Graff, *Professing Literature: An Institutional History* (Chicago: Chicago University Press, 2007), 146.

³² Both fallacies are discussed in the first two essays of William K. Wimsatt and Monroe C. Beardsley, *The Verbal Icon: Studies in the Meaning of Poetry* (Lexington: University of Kentucky Press, 1954).

well as the “heresy of paraphrase.”³³ It was no longer considered desirable, or even possible, to determine the author’s intentions in writing a poem, the internal consistency of the poem on the page being the best guide to the poem itself. To paraphrase a poem, or reduce a poem to a meaning divorced from the indissoluble tension of its contradictory images, was to do a violence to its unique mode of being.

Treitler considers new criticism a positivist methodology because of its emphasis on “consistency and design.”³⁴ This is not surprising, as he criticises any and all forms of analysis as so many filters upon a fundamentally suspect set of empirically-derived formal interpretations. It is a manifest error, however, to conflate a qualified desire for rigor and formal clarity with positivism. One need only consider the sharp inter-war divide between textual scholars and critics in American academies to begin doubting this assumption.³⁵ It is just as short-sighted for Taruskin (and in keeping with his summary and inadequate descriptions of historical intellectual movements) to insist that the new critics’ sole concern was the “shibboleth [...] maximum complexity under maximum control.”³⁶ Taruskin repeatedly invokes this phrase to characterise twentieth-century modernist aesthetics. One could argue that Taruskin grossly misreads the new critics, to the point one could be forgiven for wondering whether he has ever read them at all. Taruskin’s much-repeated “shibboleth” is but a passing observation lifted from another secondary source, David Littlejohn’s *The Ultimate Art: Essays Around and About Opera*.³⁷

New Criticism and other modes of formal analysis are extensions of the empirical side of editing only insofar as they open the door to interpretation. The new-critical notion of the poem as a “pattern of resolved stresses” is not the goal of criticism but a hypothetical working model by which the critic takes leave of the empirically-given text and enters a realm of critical interpretation.³⁸ Once in the realm of interpretation, the sorts of statements produced by critics are so much unverifiable nonsense to positivist science. Cleanth Brooks specifically attacks attempts to “paraphrase” poetic language by logical or schematic reduction. Admittedly, he

³³ Cleanth Brooks, “The Heresy of Paraphrase,” in *The well wrought urn: studies in the structure of poetry* (New York: Harcourt, Brace and World, 1975).

³⁴ Leo Treitler, “Music Analysis in an Historical Context,” *College Music Symposium* 6 (1966): 80.

³⁵ See Gerald Graff, “Scholars Versus Critics: 1915–1930,” in *Professing Literature*.

³⁶ Taruskin, *Music in the Late Twentieth Century*, 142, 224, 300.

³⁷ David Littlejohn, *The Ultimate Art: Essays Around and About Opera* (Berkeley: University of California Press, 1992), 40.

³⁸ Brooks, “The Heresy of Paraphrase,” 203.

delineates the poetic from the “logical” critical statement with a musical metaphor that may be misleading for one such as Taruskin looking for a formalist punching bag:

The essential structure of a poem (as distinguished from the rational or logical structure of the ‘statement’ which we abstract from it) resembles that of architecture or painting: it is a pattern of resolved stresses. Or, to move closer still to poetry by considering the temporal arts, the structure of a poem resembles that of a ballet or musical composition.³⁹

If one assumes that Brooks associates the musical with the formal, then one could consider the aim of new criticism to be a sort of Schenkerian reduction of the poem (an analogy that does not do Schenkerian analysis justice, for that matter). On the other hand, one can read Brooks’ appeal to music as an attempt to give the reader an idea of the poem as a dynamic object whose truth is, to use Badiou’s terms, both singular and immanent to the work. I am inclined toward the latter, given that the substantive heart of a close reading is not a logically-reducible language, but a “language of paradox.”⁴⁰ Just because the interpretations of the new critics are qualified with reference to a given text and bracket historical knowledge does not reduce them to a positivist science. Instead, it is clear that they function with a qualified notion of autonomy that simply seeks to ground its non-scientific judgements in a given text.

If I may be allowed a moment of intellectual-historical speculation, it is possible that the practice of Anglophone critical practice had a profound effect on Badiou’s philosophical practice. The desire to purge the text of authorial intentions and social context is evident in Gardner Davies’ “rational explication” of Mallarmé’s poems that Badiou has followed since the 1950s.⁴¹ In his influential reading of Mallarmé’s *Coup de dés*,⁴² Davies shows how “the poem strikingly illustrates the dialectic of contraries.”⁴³ Though ultimately focussed on interpreting Mallarmé’s

³⁹ ———, “The Heresy of Paraphrase,” 203.

⁴⁰ ———, *The well wrought urn: studies in the structure of poetry* (New York: Harcourt, Brace and World, 1975).

⁴¹ Bruno Bosteels provides something of a “Badiou and Mallarmé” bibliography in *Theory of the Subject* for anybody interested in this topic. Bosteels in Alain Badiou, *Theory of the Subject*, trans. Bruno Bosteels (New York: Continuum, 2009), 337n.

⁴² Davies’ *Explication rationnelle du “coup de dés”* was originally written as an Honours thesis at the University of Melbourne in 1944. The manuscript “An Intellectual Approach to Mallarmé’s ‘Coup de dés’” is held in the Chisholm collection at the Baillieu library.

⁴³ Gardner Davies, *Vers une explication rationnelle du ‘coup de dés’*, nouvelle édition (Paris: José Corti, 1992), 158.

symbolic paradoxes, Davies' method leans on empirical analyses of their semantic and syntactic pillars. To interpret the meaning of Mallarmé's images, Davies forms homologies between terms drawn from throughout Mallarmé's oeuvre. For syntax, Davies considers syntax as traditionally understood and also as the phrasing of the poem on the page. Though superseded as a "unified" interpretation of the *Coup de dés*,⁴⁴ Davies' reading was crucial in breaking with earlier interpretations of the poem as a nonsensical, illogical, "musical" juxtapositions and transformations of images.⁴⁵

If the new critics were able to make a leap from empirical observation to criticism, why did musicology instead opt for a discourse of scission? A full exploration of this topic is outside the scope of this thesis, but an answer may lie in the relative formal complexity of a musical work and the degree of pre-interpretative work required in comparison to a work of literature. In music, it is so much easier to make blanket statements about context and style than to try and trace the effects of context down to the note level of a score. This is evident in Taruskin's own work, which is strongest in its exposition of musical scores and weakest in its one-line cultural and intellectual histories.

If, with the benefit of hindsight, one can overcome such knee-jerk disciplinary reactions, then musicology is in an excellent position to recover a methodology combining editing and critical analysis. As Kerman writes, the dominance of positivist musicology blunted the critical faculties of musicologists for several decades in spite of the fact that music departments had long disposed of remarkably sophisticated tools for structural analysis:

Qua criticism, musical analysis is limited and limiting; yet it is also capable of more rigorous and powerful determinations in its own sphere than are available to formalistic criticism in any of the other arts. That is why the serious critic cannot help being both fascinated and exasperated by analysis. The potential of analysis is formidable, it if can only be taken out of the hothouse of theory and brought out into the real world.⁴⁶

In Anglophone musicology today, music analysis usually functions as a separate discipline from musicology, eschewing questions of social signification and history in

⁴⁴ Quentin Meillassoux's reading of the *Coup de dés* as a numerically coded poem provides a compelling case for its manner of composition and interpretative possibilities. Meillassoux's analysis of the poem's numerical construction revives the "musical" mode of interpretation of Mallarmé's poem, but in a completely new way. Quentin Meillassoux, *The Number and the Siren: A Decipherment of Mallarmé's Coup de dés*, trans. Robin Mackay (Falmouth: Urbanomic, 2012).

⁴⁵ Davies, *Vers une explication rationnelle*, 164–77.

⁴⁶ Kerman, *Contemplating Music: Challenges to Musicology*, 18.

favour of the extensive elaboration of mathematical and music-theoretical models. On the other hand, sociological studies of music often resist the hard questions about musical composition and form. This is in spite of the fact that music analysis has developed formal models of a detail and complexity unparalleled in the other arts that may aid the sociologist in describing exactly what the relationships of music and extra-musical elements are.

The second stage of *Antagonisme*'s composition represented by the performance scores presents a radically musically and textually inconsistent work. The removal of episode A weakens Darasse's modular exploration of retrogradation and interverson in form. The text of episode B presents the "core text" that is developed throughout the rest of the piece. It is also essential to the quarrel of music and text in the piece. It "interrupts" episode A with a theatrical "But no, no!," thus lending meaning to the slower tempo of episode D. Episode C forms one of the three echoes of the tripartite "central sonata," episodes Ga, Gb and Gc. While the inclusion of episodes A–C in an eclectic edition based on the performance scores would allay some of these inconsistencies, a new inconsistency is introduced in the rewritten episode D no longer agreeing with the original episode A. A greater level of editorial intervention will be needed if this inconsistency is to be corrected in the interest of presenting the Darasse' response to Badiou's text.

Constructing *Antagonisme*

One may well ask why one should care for the musical coherence of *Antagonisme* at all, seeing as the performance scores alone present a record of the piece's performance context. Jerome McGann, for instance, denies both the ideals of final authorial intentions and the ideology of a structurally ideal text.⁴⁷ Biographical, psychological and structural speculation can only further corrupt the work and denies the network of social forces involved in book production. Within the realm of music editing, James Grier proposes an "anti-method" that relies upon an intimate and wide-ranging knowledge of the stylistic, social and cultural context of the work in

⁴⁷ Jerome McGann, *A Critique of Modern Textual Criticism* (Charlottesville: University of Virginia Press, 1992), 56.

evaluating variants.⁴⁸ His own statement of the relationship of texts and historical evidence is so concise that it shall be quoted here in full:

Individual sources preserve musical texts that are faithful to the circumstances in which they were created and used: they are the historical documents. Their unique variants represent the way the work was performed, or might have been performed when the source in question was used. Consequently, for many works, each source is a viable record of one form of the work, and so can be treated as a possible “best text.” All sources, however, have the potential to contain errors, readings that are impossible within the stylistic conventions of the repertory, as understood by the editor. These can only be identified and mended through the editor’s intimate knowledge of the style, processes of transmission and the work’s history. Therefore no theory provides a fully self-contained method for editing, but, within the historical approach, each contributes some valuable concepts and procedures.⁴⁹

Consider, for example, the score registered with SACEM. It records the commissioning process of France’s principal performing rights organisation, as well as the rushed conditions under which the piece was abandoned. When the score was submitted on 8 June 1966, Darasse had already composed the work’s successor, *Antagonisme II*, and was just about to take up the position of professor of organ at the Toulouse Conservatoire.⁵⁰ From this point until the terrible car accident in 1977 that put an end to his performing career, Darasse largely dedicated himself to the performance of twentieth-century works by Ligeti, Xenakis, Boucourechliev, Bussotti, Guézec and others.⁵¹ Given Darasse’s priorities, the lack of revisions in the SACEM score may suggest that the submission was made with little thought to the state of the work as it was submitted.

If editing for final authorial intentions is too restrictive for the purposes required here, then Grier’s may be criticised for being too general. It cannot be taken as a guide in the case of *Antagonisme*, where different states of the work address widely divergent purposes and are of varying interest from musical and intellectual-historical perspectives. As has been shown, the principal problem arises in editing the very beginning of the piece, where deletions in the performance scores sacrifice a great deal of the text and deform the overall formal plan of the piece. But while the

⁴⁸ Grier, *The Critical Editing of Music*, 108.

⁴⁹ ———, *The Critical Editing of Music*, 109.

⁵⁰ Aguila, “Xavier Darasse compositeur et créateur : quelques repères,”

⁵¹ Chamfray, “Xavier Darasse.”

modifications and deletions of the second stage render the text and form of the work meaningless, the longer first stage represents a less than ideal musical form because of the inconsistency between the pitch material of episodes A and D and the rest of the piece. If an eclectic score is produced including episodes A–C from the first version and the modified version of D from the second, then an inconsistency arises between A and D. One may be content with one of these inconsistent forms, though neither are particularly strong examples of impartial, empirical research, much less the result of a judgment about authorial intentions or musical value. A level of intervention in the score is required that is justified by a consideration of *Antagonisme* as a site of conflicted musical and philosophical priorities.

The editorial question at hand is then “what would a score oriented towards the works’ intellectual history *qua* competing musical and philosophical discourses look like?” Such an approach is found in Thomas Tanselle’s “constructive” critical editing.⁵² Tanselle considers the copy-text within its genealogical position to evaluate textual variants more closely. In a genealogical approach “judgment,” writes Tanselle, is “clearly in the dominant position.”⁵³ If one wants to emphasise the text as a product collaboratively produced by the author and the publisher, or a pre-publication state of the work, one’s choice and evaluation of a copy-text will change dramatically. Constructive critical editing can focus on many goals other than authorial intention while liberating the editor’s judgment from the “tyranny of the copy-text.”⁵⁴ In editing *Antagonisme* for the purposes of study in this thesis, I am in search of the most complete musical response to Badiou’s text.

Darasse’s response to Badiou’s text is not bound to his intentions. One can suggest how the music and the text interact independently of whether Darasse intended such an interaction to take place or not. A convincing historical link between the two provides, however, an invaluable guide to where the most fruitful relationships may be found. Knowing of Darasse’s relationship to Messiaen led to the discovery of interversional patterns in *Antagonisme* that would have been difficult to reverse-engineer otherwise. Once armed with the observation that the piece played on the formal reciprocity between interversion and retrogradation, the deleted sections in the performance score become harder to accept. Episode D is no longer revealed to be

⁵² Tanselle, “Editing without a Copy-Text,” 20.

⁵³ ———, “Editing without a Copy-Text,” 20.

⁵⁴ ———, “Editing without a Copy-Text,” 2.

the retrograde of episode A and the deletion of episode C disturbs the *saute-mouton* reflections of the central sonata. Darasse's revised sketch of episode A shows that he was interested in these formal relationships, even if this sketch did not make it into the latest version of the piece. The strongest argument for including this sketch material is not, however, that Darasse may have had a compositional interest in this formal relationship. It is rather, as chapter seven argued, the fact that Darasse's confrontation of retrogradation and interversion in *Antagonisme* is the way in which the music surpasses the superficial dialectic of the tone row and its rhythmic distribution.

The editorial intervention required to include *Antagonisme*'s sketch material is unwarranted by copy-text or intentionalist methods. Tanselle's constructive editing method requires that the editor understands the purpose and justification for their editorial interventions. The analysis in chapter seven has shown how the tension between serial organisation and interversion determines the relationship between the work's episodes. I have also argued in chapters five and six why Darasse's use of interversion is important in understanding his reaction to Badiou's text. The edition in chapter three represents Darasse's most complete response to Badiou's text according to the standards of the analysis provided here. Seeing as there is no testimonial evidence to suggest that Darasse used interversion to respond intentionally to Badiou's text, it is also an affirmation of his use of order as a musical parameter.

If I am willing to include the rewritten version of episode A based on musical judgment, why not ameliorate other musical inconsistencies in the work? For instance, episode K is a retrograde of the beginning of episode D. However, Darasse does not provide a rewritten version of episode K. It thus mirrors an earlier version of episode D not reflected in the attached score. This thesis is primarily interested in Darasse's response to Badiou's text. While a formally more complete score is possible, I have chosen to work within the confines of the materials left by Darasse. In the end, *Antagonisme* is an open response to a philosophical question, not a perfect formal unity. This does not mean that all efforts to discover and maintain the formal coherence of works should be discarded. As Nattiez argued in 1975, one should not confuse the esthetic and poietic dimensions of the theory of the open work.⁵⁵ The description of the open-ended nature of works should not be mistaken for a methodological or aesthetic prescription.

⁵⁵ Nattiez, *Fondements d'une sémiologie de la musique* (Paris: Union générale d'éditions, 1975), 119.

While Darasse's response to Badiou's text could be verified with the help of a time machine or witness (if any of Darasse's contemporaries came forward to verify this I would be thrilled), whether order is in fact a musical parameter or not cannot be so verified. In fact, because he was intimately familiar with the music of the Second Viennese School, Popper was highly suspicious of the possibility of musical innovation. The next chapter will distinguish between Badiou and Popper's philosophies of music by arguing that only Badiou's philosophy admits the leap into the undecidable that is required of musical innovation.

9. Affirming the New

This chapter begins with a survey of the place of musical innovation in the writings of Bachelard, Popper and Badiou, passing by related theories in the writings of Theodor Adorno and Deliège. The chapter shows how these thinkers distinguished between innovation in science and art, arguing that aesthetic theory influenced their philosophies of scientific innovation. The chapter then examines the relationship between Bachelard, Badiou and Popper's practical experience with music and their philosophies. Between Badiou, Bachelard and Popper, Badiou is the only philosopher to affirm the possibility of fundamental changes in musical materials. As such, he is the only philosopher to side with the composers Messiaen and Darasse around the issue of musical innovation. Bachelard's purely objective, scholarly relationship to music saw him refuse the possibility of musical innovation. Badiou's amateur enthusiasm for music led him to give the musicians that inspired him the benefit of the doubt. His lack of technical expertise meant that music did not form a fundamental condition of his philosophy. Popper's practical experience as a student of composition offered greater insight into the problem situations of compositional processes, insights that influenced his philosophy of science. Though Popper is sceptical about contemporary music, he does not completely rule out the possibility of musical innovation. The chapter concludes by arguing that the discipline of musicology is best placed to explore this exchange between music and philosophy and evaluate the intellectual traffic between the two fields.

Innovation as Creative Investigation

It is surprising that Bachelard did not hold the same faith in radical transformations in music as he did in science. This becomes all the more surprising if one considers that Bachelard's philosophy of science borrows its rhetoric from his ideas on art. And yet, Bachelard counsels against philosophy adopting concepts from one discipline and applying them in another. Bachelard warns that philosophers should respect the spirit of the discipline from which they draw their examples, noting how "too often, under the plume of the philosopher, relativity degenerates into relativism."¹ Bachelard claims that philosophy should only take examples from science and does not develop

¹ Gaston Bachelard, *La philosophie du non* (Paris: Presses universitaires de France, 1940), 3.

those scientific theories.² Yet, his philosophy of science borrows heavily from his philosophy of art. Just as a musician produces a thickness of constructed durations in vertical time, so too does a scientist thicken our understanding of the scientific world. He claims that through the increasing formalisation of differing layers of scientific thought, “[t]he life of the mind will become pure aesthetics.”³

Even so, Wiskus explains that Bachelard’s theories of science and art entertain different relationships to the empirically given.⁴ Bachelard’s understanding of art as an imaginative enhancement of the real is linked to poetry’s mimetic capacity. Bachelard thus struggled to conceive of changes in musical form. The causality between different layers of scientific thought is a “formal,” instantaneous thickness of thought.⁵ Wiskus believes that Bachelard’s aesthetics, on the other hand, are “founded not upon the principle of representation or derivation but upon the principle of imaginative differentiation.”⁶ But does not this differentiation only exist insofar as it differs from a “lived,” perceived life? As Bachelard writes: “Poetry is an instantaneous metaphysics. [...] If it simply follows the time of life, it is less than life; it can be more than life only by immobilising it, only by locally living [*vivant sur place*] the dialectic of joys and pains.”⁷ Bachelard’s “differential ontology”⁸ must therefore be understood to entail different relationships to the real in regards to science and art. Whereas science involves the autonomous folding of thought upon itself, poetry is understood as the dialectical intensification of the real. This differentiation will persist in Badiou’s work from his earliest articles to his latest books.

A theory of art as the “intensification of the real” runs into problems when explaining non-signifying music. The conservatism of Bachelard’s discussion of music dispels any notion of a dynamic, formally-diverse musical sphere to rival science or poetry. Bachelard’s discussion of music emphasises his own objective relationship to the subject of his philosophy. While Bachelard is able to draw on his own knowledge of chemistry and physics when discussing science, his reliance on secondary sources for his discussion of music leads not to a theory of musical

² ———, *La philosophie du non*, 3.

³ Bachelard in Wiskus, “Thought Time and Musical Time,” 180.

⁴ ———, “Thought Time and Musical Time.”

⁵ ———, “Thought Time and Musical Time,” 181.

⁶ ———, “Thought Time and Musical Time,” 181.

⁷ Gaston Bachelard, *L’Intuition de l’instant* (Paris: Éditions Gonthier, 1966), 103.

⁸ Wiskus, “Thought Time and Musical Time,” 179.

production, but a limited theory of musical perception. It was up to Messiaen to assert the musician's ability to juggle with the categories of musical cognition.

To Badiou, the history of the subject is "the history of a new form, as it is incorporated in works."⁹ To return to the Schoenberg example, the body of twelve-tone music is elaborated in two modalities represented by Schoenberg's students Webern and Berg. Berg's use of the tone row as a theme in the violin concerto *To the Memory of an Angel* creates an "opening" to the classical musical subject. Webern's compositions break with the past as singular "points" in the subjective procedure of serialism.¹⁰

Popper also likens the compositional process to an investigation. Where Badiou's new musical subject is not deducible from the previous one, Popper's theory of the musical process is sutured to evolutionary theory. Popper's philosophy of science is fundamentally evolutionist in that he believes science to proceed through the self-elimination of false theories. He schematises this process as: $P_1 \rightarrow TT \rightarrow EE \rightarrow P_2$. The scientist begins with a problem (P_1) and posits some more or less correct tentative theories about it (TT). These theories go through a process of error-evaluation (EE) after which the problem is reframed (P_2).¹¹ Beaune likens this process to the clearing away of "epistemological obstacles" in Bachelard's nomenclature.¹² As in Bachelard's philosophy of science, one does not necessarily move towards greater understanding of the empirically-given world, but rather towards a new theoretical problem situation.

Popper's evolutionary theory of science loses much semblance to its model when applied to artistic creation. Popper justifies the use of a biological model in art by pointing out that natural selection can have results other than purely "utilitarian" ones.¹³ He argues that problems interact and compete, as well as their solutions. This is the case even if these problems clash with the aims of survival, such as the aim of climbing Mount Everest or going to the moon. Popper thus applies the evolutionary model to both the creation of musical works and to historical, stylistic change:

⁹ Badiou, "Scholium," 81.

¹⁰ ———, "Scholium," 83.

¹¹ Popper, *Objective Knowledge*, 119.

¹² Jean-Claude Beaune, "Bachelard et Popper, deux ennemis intimes : obstacles épistémologiques et falsifiabilité," in *Bachelard : Confiance raisonnée et défiance rationnelle*, ed. Robert Damien and Benoît Hufschmitt (Besançon: Presses Universitaires de Franche-Comté, 2006), 48–49.

¹³ Popper, *Objective Knowledge*, 253.

It is perhaps not uninteresting to see that artists, like scientists, actually use this trial-and-error method. A painter may put down, tentatively, a speck of colour, and step back for a critical assessment of its effect in order to alter it if it does not solve the problem he wants to solve. And it may happen that an unexpected or accidental effect of his tentative trial—a colour speck or brush stroke—may change his problem, or create a new subproblem, or a new aim: the evolution of artistic aims and of artistic standards (which, like the rules of logic, may become exosomatic systems of control) proceeds also by the trial-and-error method.¹⁴

The observation that works and styles interact is a rather prosaic observation without a theory of how they interact and the implications of their interaction. Deliège interpreted the relationship between styles and works in terms of Popper's principle of falsifiability.¹⁵

While Deliège introduces some clarity into the relationship of styles and works, his use of the principle of falsifiability in music is unorthodox. Falsifiability is a strictly logical principle, one of Popper's concepts that does not originate in his thinking about music. The principle of falsifiability is a way of demarcating between scientific and non-scientific statements. To Popper, there should be conditions under which a scientific statement can be proven wrong for it to avoid lapsing into dogmatic thought. Popper opposes his principle of demarcation to the positivist principle of verification. Whereas a singular statement may prove a universal statement false, it can never absolutely verify one.¹⁶

Deliège places works in the position of singular statements and styles in the position of universal statements. A work may falsify a style and a work's adherence to a style may be verified, but not the other way around. To Deliège, the medieval modal system was falsified by polyphonic works and *musica ficta*. Polyphony as a style was in turn negated by tonal works.¹⁷ Cage's aleatoric works and Kagel's subversive music theatre "sabotaged" the "over-determined" post-war musical avant-garde.¹⁸ One may argue that, seeing as works and styles are not scientific statements, then it is meaningless to speak of their falsifying anything. "But nothing implies that scientific

¹⁴ ———, *Objective Knowledge*, 253–4.

¹⁵ Célestin Deliège, Pascal Decroupet, and François Nicolas, "Contrepoint libre à trois voix: Bruxelles, Printemps 1998," *Entretiens*, accessed 3 August, 2014, <http://www.entretiens.asso.fr/Deliege/Celestin/Entretien.html>; Deliège, *Invention musicale et idéologies* 2, 17–18; ———, "Diabolus in musica... ? Charme de la perversion ou vertu de l'utopie," in *Invention musicale et idéologies* (Paris: Christian Bourgois, 1986).

¹⁶ Karl Popper, *The Logic of Scientific Discovery* (New York: Routledge, 2002), 19.

¹⁷ Deliège, *Invention musicale et idéologies* 2, 17–18.

¹⁸ ———, "Diabolus in musica... ?"

statements or theories are the only falsifiable givens,” writes Deliège. “To falsify is to distort, to perturb.”¹⁹

If Deliège’s analogy is to hold, then one must take Popper’s principle of falsification seriously as a principle of demarcation between scientific and unscientific statements and think of a non-falsifiable musical system. One can certainly conceive of non-falsifiable theories of musical systems, such as the overly-prescriptive notion of organic unity in Reti’s thematic analyses.²⁰ As was discussed in chapter five, Lévi-Strauss also believes that Rameau’s functional harmony constitutes an immutable space to the exclusion of the music of the cultures he studied as an anthropologist. Where Lévi-Strauss’ theory of music may be too restrictive, a completely open-ended idea of musical production such as Eco’s open work is only trivially useful. Deliège does not distinguish between falsifiable and unfalsifiable musical styles and as such his idea of falsifiability in music devolves into dialectical negation.

In his reading of Popper, Deliège deploys a dialectical, dual-level concept of form. Such a concept of form is also famously found in the work of Theodor Adorno.²¹ In Adorno’s writing, the first or universal level consists of cultural, pre-formed musical materials such as genres, forms, tuning systems, compositional techniques and “stylistic norms.”²² At the second, particular level of articulation these materials are “dismantled, deconstructed and re-contextualised” within a new work.²³ The specific relations of articulated materials in the work constitute its content.²⁴

Adorno’s theory of musical production is underpinned by its corresponding theory of economic production, to which neither Deliège nor Popper subscribe. In Adorno’s theory, the economic base of society ultimately determines the musical dialectic. Extracting a clear model of musical production from Adorno’s writings is not an easy task given his reluctance to ever propose such an overarching model. Max Paddison nevertheless reads across key texts to derive the following summary:

Roughly put, composition and, in part, performance (presumably as techniques and technologies of composition and performance, instruments, notation, and indeed ‘musical material’) are what he appears to understand as the forces of (musical) production, which, as *aesthetic* forces of production, belong to the ideological superstructure. The form of production epitomized

¹⁹ ———, *Invention musicale et idéologies* 2, 17.

²⁰ Rudolph Reti, *The Thematic Process in Music*.

²¹ Max Paddison, *Adorno’s Aesthetics of Music* (Cambridge: Cambridge University Press, 1993), 150.

²² ———, *Adorno’s Aesthetics of Music*, 150.

²³ ———, *Adorno’s Aesthetics of Music*, 150.

²⁴ ———, *Adorno’s Aesthetics of Music*, 151.

by the ‘culture industry’, however, he understands as belonging to the economic relations of production, and as such is seen as part of the economic and material *base* of society. Furthermore, the musical forces of production, as aesthetic forces, still derive, at least in part, from an earlier mode of production—that characterized by the master-apprentice, craft ethic, although, of course, continuously modified by technological developments from the capitalist mode of production. Seen in this way, both the forces and the relations of *musical* production come entirely under the sway of the material relations of the capitalist mode of production, in spite of the anachronistic survival within musical composition and performance of pre-capitalist modes of production.²⁵

Even though the craft ethic motivates the dialectic of the musical material in the aesthetic mode of production, this activity is ultimately expropriated and modified by the contemporary capitalist mode of production.

Though, to Adorno, the economic base ultimately determines musical production, certain musical materials have, since the nineteenth century, experienced a certain aesthetic autonomy in its isolation, as a commodity, from use-value.²⁶ As Adorno wrote to the composer Ernst Krenek:

When you [Krenek] explain the way art “has become autonomous” [*die ‘Autonomisierung’ der Kunst*] as the decisive change, that is really exactly what I mean by its commodity character. Only it is the same phenomenon described not from the side of the *relations* of production, but from the side of the *forces* of production.²⁷

To Adorno, the dialectic of economics and autonomous music does not result in change to the economic base as some theorists working with transparently historical-materialist models have argued.²⁸ To the contrary, Adorno argues that dialectical music is strictly “on the side of music,” wresting musical development from its relationship with the economic base.²⁹

As well as entertaining a dialectical relationship with the economic base, the music of the Second Viennese School proceeds through an “immanent dialectic” of “musical material.”³⁰ In Schoenberg’s case, writes Adorno, “for perhaps the first time

²⁵ ———, *Adorno’s Aesthetics of Music*, 127.

²⁶ Theodor W. Adorno, “On the Social Situation of Music,” in *Essays on Music*, ed. Richard Leppert (Berkeley: University of California Press, 2002), 393.

²⁷ Adorno in Gillian Rose, *The Melancholy Science: An Introduction to the Thought of Theodor W. Adorno* (London: The Macmillan Press, 1978), 118.

²⁸ See in particular Jacques Attali, *Bruits: essai sur l’économie politique de la musique* (Paris: Presses universitaires de France, 1977).

²⁹ Adorno, “On the Social Situation of Music,” 401.

³⁰ ———, “On the Social Situation of Music,” 397–8.

in the history of music, consciousness has taken hold of the natural material of music and seized control of it.”³¹ Adorno describes each work by Schoenberg as responding to specifically musical problems arising through the composition of preceding works.³²

The isolation of the artist nevertheless allows the musical work to establish a critical distance from the economic base.³³ The apogee of this movement towards isolation is the Second Viennese School of Schoenberg, Berg and Webern. By turning away from “the expressive music of the private bourgeois individual” twelve-tone music removed itself from social function and developed an antagonistic relationship with the culture industry and the attendant forms of composition and listening of the economic base. Under these conditions, music attains the same critical relationship to social praxis as social-theoretical reflection.³⁴

If Adorno advocates the autonomous dialectic of musical materials, why does he then back away from it with his theory of economic determination? Adorno’s doubts about the autonomy of musical material stem from his practical experience as a student and scholar of music. Adorno is aware of how difficult it is to construct an argument about large-scale stylistic change through the analysis of individual works. Adorno expressly warns against the difficulties of describing “universal” stylistic change from the vantage point of a “particular” work:

It is difficult to distinguish which archaic and primitive traits result from technique and which from the objective idea of the work; the two can be separated only arbitrarily. Even flaws may become eloquent, whereas what is excellent may in the course of history narrow the truth content. The history of art is just that antinomical.³⁵

It is not surprising then that Adorno did not attempt to think a qualitative break between musical styles in the immanent musical dialectic. To Adorno, the constitution of a new musical style was exclusively a matter of gradual elaboration through works that were fundamentally antagonistic to each other. As he wrote in *Aesthetic Theory*, “Every work is the mortal enemy of the other.”³⁶

³¹ ———, “On the Social Situation of Music,” 398.

³² ———, “The Dialectical Composer.”

³³ ———, “On the Social Situation of Music,” 396.

³⁴ ———, “On the Social Situation of Music,” 393.

³⁵ Theodor Adorno, *Aesthetic Theory*, trans. Robert Hullot-Kentor (New York: Continuum, 1997), 276.

³⁶ ———, *Aesthetic Theory*, 276.

Popper's theory of musical autonomy remained conservative throughout his life. In particular, he wanted to avoid the sort of historical progressivism he read in Wagner's writings at all costs.³⁷ Whereas Adorno posits practical reasons why it is difficult to discern radical ruptures in music history, Popper's point-of-view owes less to philosophy than to personal predilection. Even though Popper is suspicious of radical change, he does not rule it out. "Einstein may not have been a greater physicist than Newton," Popper writes, "but he mastered Newtonian technique completely; no similar relation seems ever to have existed in the field of music."³⁸ At the heart of his conservative ideology of music is a concern about the destructive capacity of innovation, arguing that "[t]here is also always the danger that newly realized possibilities may kill old ones." Popper gives the example of counterpoint, which "threatened the loss of monodic and especially of rhythmic effects [...]"³⁹

Popper's theory of music looks more and more coherent when considered alongside Bachelard's differential ontology. Jean-Claude Beaune calls Popper and Bachelard "intimate enemies," noting (besides the actual intellectual convergences) the fortuitous publication in 1934 of Popper's *Logik der Forschung*, published in English in 1959 as *The Logic of Scientific Discovery*, and Bachelard's own philosophy of science in *Le nouvel esprit scientifique*.⁴⁰ Beaune writes that Popper's theory of the three worlds "would have, at least partially, delighted Bachelard [...]"⁴¹ So too should it delight Badiou, affirming as it does his materialist-dialectical axiom "there are bodies and languages, except there are truths."

Considering that Althusser adapted Bachelard's notion of epistemological rupture to justify Marx's dialectical materialism as a science of the sciences, it is not surprising that Popper was widely ignored by the authors of the radically structuralist journal *Cahiers pour l'Analyse*, including Badiou. Bachelard believed that scientific thought often broke with previous paradigms in a way that could not be attributed to the gradual refinement of theses, as Regnault explains:

After the ideological errands or wanderings that generally precede the advent of a new science (which he referred to as 'epistemological obstacles'), Bachelard explained, such a science would constitute itself on

³⁷ Popper, *Unended Quest*, 70.

³⁸ ———, *Unended Quest*, 69.

³⁹ ———, *Unended Quest*, 69.

⁴⁰ Beaune, "Bachelard et Popper," 47.

⁴¹ ———, "Bachelard et Popper," 56.

an entirely different basis, inaugurating a new programme of research, even if some remainders and fictions that had preceded this science often continued to inhabit it [...].⁴²

Balibar considers Bachelard's epistemological rupture and Popper's principle of falsifiability to be two contradictory strategies of self-validation. Whereas Popper's "ad hoc" principle that there must be conditions under which a scientific thesis may be falsified is intended to exclude psychoanalysis and Marxism from science, the similarly "ad hoc" principle of the epistemological break, as adopted by Louis Althusser, is supposed to include them.⁴³

Adorno also relies upon the ad hoc rupture of dialectical materialism from bourgeois science in thinking about the relationship of society and music. The lack of a clear demonstration of the relationship between musical and social structures is noted by Paddison:

The distance between musical structures and social structures is in this case not really bridged at the level of interpretation because, in spite of his insistence that such interpretation must be grounded in the immanent analysis of concrete works, there is little analytical detail.⁴⁴

Does the lack of musical detail in Adorno's work mean, as Rose Subotnik suggests, that he did not really "know" music?⁴⁵ One need only consider Adorno's contribution to Thomas Mann's *Doctor Faustus*, or his late work on Beethoven,⁴⁶ to find evidence of Adorno's intimate knowledge of compositional practice. Or perhaps Adorno was prey to a scientific, positivist ideology of the musical work, as Subotnik writes:

[T]he metaphorical listening position that structural listening encourages is less that of Schoenberg's and Adorno's structural insider than that of the externally situated, scientific observer. [...] But just as Western science has increasingly been criticized as a culturally limited and limiting construct, so, too, there is a strong argument to be made that the terms on which structural listening operates originate far less in universal conditions of music than in our specific cultural predilections.⁴⁷

⁴² François Regnault, "Structure and Subject," in *Concept and Form*, vol. 2, 17.

⁴³ Etienne Balibar, "From Bachelard to Althusser: the concept of 'epistemological break'," *Economy and Society* 7, no. 3 (1978): 216.

⁴⁴ Paddison, *Adorno's Aesthetics of Music*, 230.

⁴⁵ Rose Rosengard Subotnik, "Toward a Deconstruction of Structural Listening: A Critique of Schoenberg, Adorno, and Stravinsky," in *Deconstructive Variations : Music and Reason in Western Society* (Minneapolis: University of Minnesota Press, 1996), 165.

⁴⁶ Theodor W. Adorno, *Beethoven: The Philosophy of Music*, trans. Edmund Jephcott (Stanford: Stanford University Press, 2002).

⁴⁷ Subotnik, "Toward a Deconstruction of Structural Listening," 157.

Subotnik may be more correct than she thinks if science is taken to be a field of competing theoretical models with no “outside” as such. But to associate structural listening and the brute empirical validation of scientific theories does both fields a disservice. To the contrary, is it not possible that the various versions of Adorno’s dialectical theory of music presented throughout his lifetime show a musical understanding that is always ready to be proven otherwise, that is falsifiable? As Subotnik herself points out: “Adorno’s constant preoccupation with social ideology, then, led him to a continuous engagement with that layer of music which he least valued,” that is to say sound, style and signification.⁴⁸ Adorno’s intimate understanding of music allowed him to engage in both structural and social facets of music. Practical experience also determined the philosophical perspectives of Bachelard, Badiou and Popper.

The Scholar, the Dilettante and the Amateur

I have speculated on possible links between Bachelard, Badiou and Popper’s practical expertise in music and their theories on music. It seems that the more experience that philosophers have with musical creation, the more ways they are able to affirm and qualify musical autonomy. Music in turn becomes a central inspiration to their investigations into philosophy of autonomous fields of thought. Of the three figures examined here, Popper had the most extensive experience with musical composition. Popper had extensive practical experience in music, ranging from church music to the music of the Second Viennese School. Popper learnt the violin and taught himself the piano. He composed and considered becoming a professional musician for a while between 1920 and 1922. Inspired by Mahler’s defence of Schoenberg, he “decided that he really ought to make a real effort to get to know and to like contemporary music.”⁴⁹ He became a member of Schoenberg’s Society for Private Musical Performances and took lessons from Schoenberg’s pupil Erwin Stein, which principally consisted in helping with rehearsals for the Society.⁵⁰ He thus became intimately familiar with Schoenberg’s *Kammersymphonie* and *Pierrot Lunaire* and Berg’s *Orchesterstücke*. The experience was not entirely agreeable, however, and

⁴⁸ ———, “Toward a Deconstruction of Structural Listening,” 164.

⁴⁹ Popper, *Unended Quest*, 54.

⁵⁰ ———, *Unended Quest*, 54.

after two years he found that he “had succeeded in getting to know something—about a kind of music which now I liked even less than I had to begin with.”⁵¹ He then joined the department of Church music of the Vienna *Konservatorium*, but left after a year deciding that he was not good enough a musician to neglect his other interests (including mathematics, physics and cabinetmaking).⁵² As is shown above, Popper’s engagement with music became an important condition of his philosophy, contributing to his theory of the three worlds. The same cannot be said of the relationship between Badiou’s philosophy and music.

On 9 January 1965 a young Alain Badiou interviewed his former teacher and director of the École Normale Supérieure, Jean Hyppolite, for a television broadcast. Hyppolite makes a remark on the relationship of philosophy and non-philosophy that could have come out of Badiou’s own mouth years later:

I think that there is a strict relation between philosophy and the non-philosophical, between philosophy and its conditions, between philosophy and the conditions of its time; the philosopher thinks her time, she was raised in thought and she depends on non-philosophy to the degree that [...] it is not a pure form and to the degree that there are non-philosophical sources of philosophy [...].⁵³

In *Being and Event*, Badiou expanded his conception of the relationship of philosophy to its time by producing a theory of four conditions of philosophy: science, politics, art and love.⁵⁴ These four fields may seem restricted in number and Badiou often justifies them with the provision that, though they are the only generic procedures that we know of, there may be more. In *Logics of Worlds* he asserts:

The fact is that today—and on this point things haven’t budged since Plato—we only know four types of truths: science (mathematics and physics), love, politics and the arts. We can compare this situation with Spinoza’s statement about the attributes of Substance (the ‘expressions’ of God): without doubt, Spinoza says, there is an infinity of attributes, but we humans know only two, thought and extension. For our part, we will say that there are perhaps an infinity of truths but we humans only know four.⁵⁵

⁵¹ ———, *Unended Quest*, 54.

⁵² ———, *Unended Quest*, 54–5.

⁵³ Hyppolite in Tzuchien Tho and Giuseppe Bianco, *Badiou and the Philosophers*, 7.

⁵⁴ Badiou, *Being and Event*, 16.

⁵⁵ ———, *Logics of Worlds*, 71.

Philosophy must think in terms of its relationships with all four of these conditions at the risk of becoming “sutured” to any one of them. Philosophy is sutured when “instead of constructing a space of compossibility through which the thinking of time is practiced, philosophy *delegates* its functions to one or other of its conditions, handing over the whole of thought to *one* generic procedure.”⁵⁶ Such was the case in, for instance, Heidegger’s reading of Hölderlin,⁵⁷ Stalin’s association of philosophy and politics or Rudolf Carnap’s assertion that “philosophy is to be replaced by the logic of science.”⁵⁸ Badiou calls such a situation a “disaster” for philosophy.⁵⁹

Instead of becoming sutured to one condition, Badiou’s philosophy thinks their “compossibility.” Badiou draws the term from Leibniz, who uses it in reference to God’s Understanding, which is able to contain “a multiplicity of contradictory, mutually destructive worlds,”⁶⁰ or, in a more sober sense, “a relation in which two possible terms or events can coexist without the opposition of one of the terms entailing the suppression of the other.”⁶¹ This compossibility can only be thought within philosophy. From the outside, it appears that philosophy’s conditions are constantly at odds: The arts and science battle for government funding; political ideology shapes artistic practice; psychoanalysis is ridiculed by the medical profession. Amidst this ideological mess, the philosopher shows how the key discoveries, decisions and creations of their time may be thought together to form a hitherto unperceived schema of truth, the subject and the event. As shall become evident, Popper’s philosophy is, despite its musical origins, sutured to a biological theory of evolution that not only becomes nonsensical when applied to music, but prohibits the theorisation of radical musical change.

Given his lifetime of practical experience with music, it is surprising that Badiou should use it as an example in his philosophy rather than a condition. As someone who is deeply impressed by music, even “intimidated” by it,⁶² Badiou’s relationship to music must be recognised as that of a knowledgeable enthusiast or

⁵⁶ ———, *Manifesto for Philosophy: Followed by Two Essays: “The (Re)Turn of Philosophy Itself” and “Definition of Philosophy,”* trans. Norman Madarasz (New York: State University of New York Press, 1999), 61.

⁵⁷ ———, *Manifesto for Philosophy*, 73–6.

⁵⁸ Hallward, *Badiou: A subject to truth*, 249.

⁵⁹ Badiou, *Conditions*, 17.

⁶⁰ Norman Madarasz in ———, *Manifesto for Philosophy*. 157n.

⁶¹ Gabriel Riera, “For an ‘Ethics of Mystery’: Philosophy and the Poem “ in *Alain Badiou: Philosophy and its Conditions*, ed. Gabriel Riera (New York: State University of New York Press, 2005), 69.

⁶² Alain Badiou and Charles Ramond, “Un entretien avec Alain Badiou,” in *La musique, un art du penser?*, ed. Nicolas Weill (Rennes: Presses Universitaires de Rennes, 2006), 290.

amateur. Its effect on his philosophy is one of pre-philosophical inspiration rather than the provision of formal concepts. As he said in an interview with Laure Adler, “[m]usic is overall something that gives me the sentiment of a sort of subjective concentration, like that, of gathering myself. That’s how I’d put it. It’s rather an existential rapport, even. [...] It’s a face-to-face with myself.”⁶³

In terms reminiscent of Popper’s musical epiphanies, Badiou speaks of how music provides the promise of a link between the formal purity of truths and their worldly appearance:

Music is held in this way between the subjective, the discourse of subjectivity, the manner in which it addresses itself to us, to our affects, to our joy, to our sadness, to our grief, to our farewell to the world or to our salute to the morning, and, on the other side, the objectivity of a written chemistry of a complexity, of an extraordinary density. [...] I recalled just now that, when I heard the third act of *Tristan*, I was in a state of complete affective upheaval, but I did not know at all how it was done. But to arrive at that effect, what science! What combination of means! What mathematical architecture! What sophisticated writing! ⁶⁴

Badiou identifies three moments in his own life where he experienced music as a promise of autonomous thought. He learnt to play the flute as a child under a particularly austere teacher. Badiou describes music at this stage as being less “an art of thought” than “an art of obedience.”⁶⁵ At the age of thirteen or fourteen, Badiou’s teacher gave him Bach’s Sonata in A Minor for solo flute, BWV 1013. Badiou describes the transformation of his experience of music at this time:

Then, for a reason that was, at the time, completely obscure to me, I sensed, I felt, I experienced that I passed into another universe. The difficulty changed sense: in the place of the difficulty of an obedience, of a discipline, it became the difficulty of an entrance [*entrée*]. I dedicated myself to playing this piece in a way that was not dishonourable in my own eyes. ⁶⁶

⁶³ The original is given here because of the informal, idiomatic nature of the dialogue. “La musique est surtout quelque chose qui me donne le sentiment d’une sorte de concentration subjective, comme ça, de rassemblement de moi-même. C’est comme ça que je l’avère. C’est plutôt un rapport existentiel tout de même. [...] C’est donc un face à face avec moi-même, la musique.” Alain Badiou and Laure Adler, “Hors-champs,” 19 March (Radio France, 2012).

⁶⁴ Badiou and Ramond, “Un entretien avec Alain Badiou,” 293–4.

⁶⁵ ———, “Un entretien avec Alain Badiou,” 287.

⁶⁶ ———, “Un entretien avec Alain Badiou,” 287–88.

Badiou's second key experience with music was when his father (Raymond Badiou, mayor of Toulouse 1944–1958⁶⁷) resolved to bring Wieland Wagner's Bayreuth productions to the Théâtre du Capitole. In 1952 he travelled to Bayreuth, passing a "destroyed" Germany. "Munich was a sort of ocean of stones scattered to the horizon, the people wandering in the ruins."⁶⁸ Badiou attended *Tristan und Isolde* in Wieland Wagner's *mis en scène*, with the Chilean tenor Ramón Vinay singing Tristan. The effect, once again, was transformative:

I was completely torn apart by it. The pain accumulated by the spectacle of the war and of this crushed Germany was sublimated, was introduced into the absolute pain of Tristan in the third act. All that fused together in the very young boy that I was in a sort of wrenching that made me say: "Music, it's something else. I don't know exactly what, but it is something else." Perhaps another form of thought.⁶⁹

Badiou's third biographical reminiscence is from when he performed his military service. He knew, at this point, "that to play the flute well was something other than to obey one's mother, perhaps to disobey her, perhaps to change."⁷⁰ Badiou formed part of the air force band, playing together with other young aviation workers. Nearly everybody else played saxophone or trumpet, preferred dance music and didn't like the music that Badiou played. Badiou felt like himself "in the state of an oppressed minority" trying to be heard in the brass band.⁷¹ Badiou recalls:

I perceived the scission between a popular music that seizes bodies in an essential way, that gives them the joy of its rhythm, and an art music that also absolutely seizes the affect but by another path, by another diagonal, as I had experienced at Bayreuth.⁷²

Badiou has also had the opportunity to contribute to the composition of new music, incorporating himself in the process to varying degrees. An opera of Badiou's novel *L'Écharpe rouge* composed by George Aperghis and directed by Antoine Vitez was presented in 1984 at the Opéra national de Lyon, Festival d'Avignon and Théâtre de Chaillot in Paris. In *L'Écharpe rouge* Badiou extracted the main players of French

⁶⁷ "Badiou, Raymond," La mairie de Toulouse, accessed 22 October, 2012 http://basededonnees.archives.toulouse.fr/4DCGI/Web_VoirLaNotice/06_07/6869/ILUMP14080.

⁶⁸ Badiou and Ramond, "Un entretien avec Alain Badiou," 288.

⁶⁹ ———, "Un entretien avec Alain Badiou," 288.

⁷⁰ ———, "Un entretien avec Alain Badiou," 288.

⁷¹ ———, "Un entretien avec Alain Badiou," 288.

⁷² ———, "Un entretien avec Alain Badiou," 288.

communism between 1968 and 1976 and cast them across the dramatic frame of Paul Claudel's epic play *Le Soulier de Satin*.⁷³

In the 1980s and '90s, Badiou's texts were also incorporated into the post-serial and electroacoustic music emanating from Darmstadt and Ircam by the composer François Nicolas. Nicolas' first non-student composition is the unpublished *L'Ombre où s'y claire* for flute, clarinet, viola, cello and piano from 1986.⁷⁴ The title and structure of the work is derived from a poem by Badiou that was published in the festival programme of the 1984 Festival d'Avignon.⁷⁵ A recording of the same poem, rewritten and recited by Badiou, forms part of Nicolas' 1994 composition *Dans la distance* for two voices, large ensemble and live electronics.

Badiou's explanation of his silence in regards to music, leading up to his seminars on Wagner in 2005 published as *Five Lessons on Wagner*, is so frank that it deserves to be given in full:

I must say that everyone has their form of intimidation. For example, I know many philosophers who are absolutely intimidated by the sciences. They will not say a word about them. They will even sometimes explain in their philosophy that they are not worth talking about. But I know very well that they are intimidated, that they do not have novel or original words to say on the topic. Others are absolutely intimidated by politics and others could be intimidated by theatre. And me, I must say that music intimidates me. It is not at all that it is not important, it is perhaps precisely that it is essential, but it intimidates me. And it intimidates me for reasons that I believe to be very simple, which is that I do not truly know yet what it is to speak philosophically about it. I have undertaken that a little, very recently, this year. It's the advantage of age perhaps. One is less intimidated, basically, the more one ages.⁷⁶

As Badiou remarked in the interview with Charles Ramond, the rapport of philosophy and music in the case where the philosopher is also a musical practitioner, such as those of Adorno, Nietzsche and Rousseau, better reflects his own relationship to theatre and the novel than to music.⁷⁷ In lieu of proximity to musical practice, Badiou identifies two strategies or "ruses" through which he is able to write about music.⁷⁸ Firstly, he leans on the work of one more adept at music than himself. This explains

⁷³ Alain Badiou, "L'Écharpe rouge, piqure de lumière" *Le journal de Chaillot* 13 (1983): 5.

⁷⁴ François Nicolas, *L'ombre où s'y claire*, 1986, score with annotations, private collection of François Nicolas, Paris.

⁷⁵ Alain Badiou, "'Poème mis à mort', suivi de 'L'ombre où s'y claire,'" in *Le Vivant et l'artificiel* (Sgraffite: Festival d'Avignon, 1984).

⁷⁶ Badiou and Ramond, "Un entretien avec Alain Badiou," 290.

⁷⁷ ———, "Un entretien avec Alain Badiou," 291.

⁷⁸ ———, "Un entretien avec Alain Badiou," 289.

the extent to which *Five Lessons on Wagner* focuses on Adorno and the “case of Wagner” rather than Wagner’s music. Brian Kane remarks upon this aspect of the book and the space Badiou dedicates to rehashing the “genre” of philosophical writing on Wagner, including Adorno.⁷⁹ But a well-versed proxy is not all that Badiou finds in Adorno. There is also a similarity to their points of view. Michael Gallope points out that both urge “a formalist apprenticeship with the work, an orientation toward the nonidentical, and an opinion that popular music is ideological.”⁸⁰ Badiou’s first ruse also explains the way he defers to other more musically experienced writers such as Nicolas and the performer and musicologist Charles Rosen.⁸¹

Completing the portrait of Badiou as an *amateur* requires replacing Wagner with Viennese operetta. As the son of the mayor of Toulouse, Badiou grew up with the privilege of occupying the mayor’s box at the Théâtre du Capitole. As well as grand opera, the mayor’s box granted the young Badiou access to plays and operettas that he would attend with half a dozen friends every Sunday afternoon.⁸² “One must recognise and say publicly,” Badiou remarked in a recent interview, “that a part of my true culture is the operetta of the nineteenth century, because of the mayor’s box.”⁸³ Along with nineteenth century Viennese operettas, Badiou remembers enjoying Ralph Benatzky’s Weimar Republic-era opera *L’auberge du cheval blanc* and the post-war Parisian opera *La belle de Cadix* by Francis Lopez.⁸⁴ This middle-brow pedigree shined forth when Badiou came to write *L’Écharpe rouge*. Each scene is based on an operatic form such as an “air,” “aria,” “duo,” “trio” or “chorus,” thus not the musical language of Wagner’s music dramas, but that of *opéra comique*.

The portrait of Badiou the amateur musician illuminates the playful tone of *Antagonisme*, and the fact that the piece resembles a melodrama or piece of theatre reflects his early interest in staged music. After the narrator’s Foreword, Badiou asked Darasse to write something “implacable, like an *étude de rythme*.” Badiou may have had Messiaen’s *Études de rythme* in mind. Darasse duly constructed a series of dissonant chords and filigree, which the narrator interrupts with an interjection: “Mais

⁷⁹ Kane, “Badiou’s Wagner: Variations on the Generic,” 349.

⁸⁰ Michael Gallope, “The Universal Form of Badiou’s Wagner,” *The Opera Quarterly*, 346.

⁸¹ Badiou, *Handbook of Inaesthetics*, 13; ———, “Scholium,” 525.

⁸² Alain Badiou and Frédéric Taddéi, “Tête à tête,” 11 December, (Radio France, 2011). The Théâtre du Capitole, located inside the Town Hall of Toulouse, was rebuilt after the Second World War and reopened in 1950. “L’histoire,” Théâtre du Capitole, accessed 7 March, 2012, <http://www.theatre-du-capitole.fr/1/le-theatre/l-univers-du-theatre/l-histoire.html?lang=fr>.

⁸³ Badiou and Taddéi, “Tête à tête.”

⁸⁴ ———, “Tête à tête.”

non! Non! Non.” Badiou may be found quarrelling with a musician in *Antagonisme*, but his philosophy does not dictate to musicians. Instead, it defends the musician’s right to “juggle with the different senses of duration.”

Towards a materialist-dialecticist musicology

A musicology that examines the situations and problem situations of works is also capable of taking the musician’s side in affirming the perceptible novelty of their techniques. Musicology is not consigned irremediably to the world of democratic materialism in which “there are only bodies and languages.”⁸⁵ In fact, musicology is better placed than philosophy to consider musical novelty. By examining the problem situations of works, musicology can determine where musical and extramusical priorities overlap. Only musicology can do this because only musicology has the analytical and interpretative tools for understanding the network of musical works and performances stretching around the world and back in time; for understanding how musical invention proceeds, what hinders it, and what aids it.

This thesis has established a sequence of analytical methods, key amongst which is the identification of the musical stakes of a work. There is no reason why popular musics and non-Western art musics cannot be examined with the same lens. In his *Second Manifesto for Philosophy* Badiou offers a call to arms that could provide a programme for the initial stages of this methodology:

To put things succinctly, let’s say that technology, culture, management and sex have taken up the generic place of science, art, politics and love.

As a result, not only must we recall these conditions, we also need to defend their active autonomy. This amounts, in fact, to setting them out in the contemporary historical development of their processes—a more descriptive than theoretical task, which I have not undertaken here.⁸⁶

[...] Art can and must take a stand on History, take stock of the past century and propose new sensory forms of thought that is [sic] not simply rebellious but also a force of unification around a number of affirmations that we might call ‘sensible principles’. [...] This labour is proposed to all ...⁸⁷

A. J. Bartlett goes beyond Badiou’s research programme to argue for an “education by truths” that would derive the most radical consequences of a truth in a situation.⁸⁸ Such an education might not, after all, differ greatly from Popper’s educational

⁸⁵ Badiou, *Logics of Worlds*, 1.

⁸⁶ ———, *Second Manifesto for Philosophy*, 120–1.

⁸⁷ ———, *Second Manifesto for Philosophy*, 122–3.

⁸⁸ A. J. Bartlett. *Badiou and Plato: An Education by Truths* (Edinburgh: Edinburgh University Press).

rationale that seeks to understand how philosophers react to their current philosophical situations to create new world three objects. In a lecture from 1952, Popper outlined the dangers of analysing philosophical problems outside of their problem situations in language reminiscent of Hyppolite's conditions:

The degeneration of philosophical schools in its turn is the consequence of the mistaken belief that one can philosophize without having been compelled to philosophize *by problems which arise outside philosophy*—in mathematics, for example, or in cosmology, or in politics, or in religion, or in social life.⁸⁹

In Badiouese, Popper advocates the study of philosophy as a study of philosophy's relationships to its conditions. Popper also suggests that philosophy be taught so that students understand the problems that provoked philosophical answers.⁹⁰ Popper's theory of qualified musical autonomy insists that contextual considerations contribute to an understanding of philosophical or musical processes. There is no context for context's sake.

⁸⁹ Karl Popper, *Conjectures and Refutations* (New York: Routledge, 1963), 95.

⁹⁰ ———, *Conjectures and Refutations*, 97.

10. Conclusion: After *Antagonisme*

How did Darasse respond to Badiou's text? With the benefit of hindsight, the question posed at the beginning of this thesis contains assumptions about the relative importance of authorial intention in philosophy and composition. The question suggests that Badiou's text floats free of the author and poses a purely textual problem to Darasse. Meanwhile, Darasse's response is tethered to the historical situation of the composer. This assumption is suggested by contextual details: The brevity of Darasse and Badiou's association and the absence of Darasse's letters give the impression that Badiou contributed to the collaboration solely through texts and that his ideas arrived fully-formed. This thesis has put some historical and biographical flesh on the bones of this problem situation, while skeletising Darasse's musical response to its most formal features.

Darasse and Badiou's successes, including Darasse's *premier second grand prix* at the *concours de Rome* and Badiou's lauded publication of *Almagestes*, imbued the collaboration with a heightened sense of occasion. The musical ground was shifting under Darasse's feet, with Messiaen entering the musical establishment and Malraux modernising the *concours de Rome*. *Antagonisme* exhibits the rhythmic permutations and poetic sensitivity of *Les Rois-mages*. Badiou used a detached, ideological voice in *Antagonisme* to separate text and music, proposing an antithetical problem situation to that of the *scène lyrique* of the *concours de Rome* with its hyper-theatrical vocal writing and orchestral accompaniment.

Badiou and Darasse's collaboration began as Badiou was establishing a relationship with Althusser and the students at the ENS. The vestiges of Sartrean faith in *Antagonisme* shows the reluctance with which Badiou accepted his new Master. In *Antagonisme*, Badiou retains a Sartrean view of subjectivity where the composer must "impose a fidelity" and affirm musical innovation.

Antagonisme shows Badiou's passage from Sartre's existentialism to Althusser's Marxist structuralism moving through the structural anthropology of Lévi-Strauss. *Antagonisme* afforded Darasse and Badiou a chance to respond to the brewing philosophical conflict between structuralists and serialism. Through the dialectical images of the cultural city and the natural ivy, Badiou produces a structuralist image of music. However, he establishes an ironic relationship between

the sense and sound of the poet's text. The pitch and rhythm of *Antagonisme* also maintain an ironic relationship. Darasse's ironic score adequately paints the poet's image of music. However, by producing such an evocative score, Darasse contradicts the structuralist assertion that serial techniques are incapable of communication. Is *Antagonisme* just a composer and a philosopher trolling one another? I have argued that there is another musical stake in the score. To understand the relationship of *Antagonisme*'s text and music, it is necessary to look afresh at the work's fundamental compositional procedures.

Despite these historical details, the letters and manuscript materials held at the Médiathèque Hector Berlioz have led to a more thorough formal investigation than may have been attempted otherwise. *Antagonisme* presents a contradiction at the level of pre-compositional materials: that between serial and ordinal organisation. By pointing to Messiaen's radical reading of Bachelard's conservative philosophy of music, I have argued that the technique of interversion manipulates order as a musical parameter. This parameter is distinct from the conventional musical parameters of pitch, duration, dynamics, articulation and timbre that make up the thematic contour of the serial row. Messiaen and Darasse shift the organisational priority of parts of their music from pitch and rhythm to ordinality. In doing so, they exit even more radically from Nicolas' history of serialism as a history of the gradual dissolution of the theme. They also depart from the structuralists' harmonic grid on which tonal music—and to a lesser extent serialism—is purportedly based. I have argued that Messiaen's contribution to contemporary music has been veiled by his religious explanations of his work. Like Messiaen's contemporaries, contemporary researchers ought to reject Messiaen's programs. Intervernion does not represent the human limitation implicit in the "charm of impossibilities," but the infinitely creative "charm of possibilities."

In *Antagonisme*, Darasse demonstrates the difference between serial and ordinal listening by showing the ambiguity that results from transformations at different structural levels. With the help of a mathematical model, the hexagon of logical opposition, I have shown how interversions are related by retrogradation. The interplay of retrogradation and interversion is central to the form of *Antagonisme* and, I argue, to the music's relationship to its text. Darasse's confrontation of different modes of organisation corroborates Badiou's contemporaneous theory of modes of aesthetic production, whether he was aware of this theory or not. After considering

the musical stakes of Darasse's score, one might better dispense with the composer and ask: How did Darasse's score respond to Badiou's text?

The philosophical problem of musical autonomy is as pressing in *Antagonisme* as it is today. I have suggested that, in order to avoid ideological stagnation, musicology should function with a qualified notion of musical autonomy. A qualified notion of musical autonomy may be found in Badiou and Popper's mature work. Both authors regard musical being as neither purely physical nor mental, but existing semi-independently within both. This partial autonomy is qualified by checks on their creation and contextualisation. Most importantly, both Popper and Badiou argue that modes of musical organisation must first be created through human action before they exist. Musicology can take part in the emergence of musical novelty by examining the complex interplay between musical and extramusical priorities in the production of musical works. In producing a score of *Antagonisme*, this thesis has sought to affirm, with Messiaen and Darasse, the possibility of order as a musical parameter.

The Messiaen Event?

Seasoned readers of Badiou may ask "Does Messiaen's music constitute an event within the terms of Badiou's mature philosophy?" This question—framed in relation to Wagner—featured heavily in several authors' contributions to the recent issue of *The Opera Quarterly* on Badiou and opera.¹ There are also compelling hints in *Antagonisme* and Badiou's writings towards an affirmative answer. As was discussed in chapter two, Badiou does not declare Messiaen's music an event, but declares it to have great "affirmative virtue." To Badiou, Messiaen's music arouses the affects of enthusiasm, happiness, pleasure and joy that Badiou associates with truth.² But Badiou's judgment does not discount Messiaen's music from meeting the criteria of an event. As was argued in chapter nine, Badiou lacks the technical knowledge to make such a judgment. Indeed, as was argued in chapter four, until recently even music scholars have avoided considering Messiaen's experimental techniques seriously within the context of European modernism. A corollary of this study is that Messiaen's techniques conform to two essential properties of Badiou's event: undecidability and universality.

¹ Kane, "Badiou's Wagner," 353; Reinhard, "Badiou and the Subject of Parsifal," 362; Waltham-Smith, "Badiou Contra Badiou," 153.

² Badiou, *Logics of Worlds*, 77.

An event introduces terms into a situation that are not included in the situation's current lexicon. The event's new name is not necessarily prohibited, but simply unknown, marginalised or ignored within the situation.³ The subject of the new truth consists of principled affirmations of a new order. The undecidable event is thus only retroactively discernible according to the new truth created by the faithful subject. Waltham-Smith is thus right to criticise the absolute undecidability of the subject of the new ceremony in *Parsifal*:

[T]he problem [...] in *Parsifal*, lies in specifying what *formally* distinguishes the coherence of a body from the unity of any other part of the world: how to distinguish between a unity 'rooted in mythic totalities such as race, nation, earth, blood, soil' and a figure of community-as-equality that resists all predicates and encompassing logics.⁴

There is no discernible new political truth in *Parsifal* beyond its blind affirmation. As I argued in chapter two, Badiou's writings on Wagner fail because his hybrid Wagnerian subject lacks formalisable detail as to the content of Wagner's politico-aesthetic subject.

By way of counterexample, chapter seven shows how Darasse and Messiaen affirm the novelty of order as a musical parameter. The chapter shows that order has previously been recognised as a musical example in change-ringing and the music of Beethoven, Ravel and Krenek. The use of order as a musical parameter is thus not entirely new, but latent and unrecognised in *Antagonisme*'s musical situation. Through a comparison of the Klein group-structure of serial transformations and the likeness of interversion to the hexagon of logical opposition, I have shown that ordinal and serial transformations are formally undecidable. Hearing an interversion as an order, as Messiaen would have it, rather than a contour requires a rejection of thematicism and a willing affirmation of order as a musical parameter. I avoided cluttering chapter seven with theoretical jargon and used the term "ambiguity" to describe the relationship of serial and ordinal transformations. Those wishing to read chapter seven in the context of Badiou's mature philosophy may read "undecidability" instead.

Chapter seven also shows that order is inherent in all musical units, from large-scale form, through musical figures to precompositional materials. Messiaen's

³ Badiou, *Being and Event*, 329.

⁴ Waltham-Smith, "Badiou Contra Badiou," 359.

use of order is thus universal, capable of reorganising the elements of an entire musical situation. Starting from the eventual undecidability of serial and ordinal procedures, Darasse appears to affirm the universality of Messiaen's techniques, forming part of a faithful musical subject.

As may be deduced from the situational analysis of this thesis, if there is a Messiaen-event, then it intervenes not in the same late-romantic situation as Schoenberg, but in the explosion of musical styles in post-war Europe. Bearing all the hallmarks of a musical event, Messiaen's radical counter-serialism is a parallel and alternate route towards the dissolution of the theme in post-war Europe.

If parts of Messiaen's music constitute a new musical subject based in axioms of ordinal organisation, then how far does this subject extend and at which point might it become saturated or exhausted? How far did Darasse take his exploration of intervention in later works? How many other students of Messiaen engaged in order-based permutations? How many other order-based techniques have emerged in different contexts? Are the possibilities of order-based permutation tragically limited or barely explored? These are all questions meriting further study.

After *Antagonisme*

It was a painful outcome for Badiou that *Antagonisme* failed to garner any mention in the *concours de composition*.⁵ This disappointment is registered in Badiou's final letter to Darasse held at the Médiathèque Hector Berlioz, where he accepts full responsibility for the failure:

I understand from *Le Monde* that our *Antagonisme* does not have a place with the jury—I am sorry and full of remorse. I feel culpable. The reservations reiterated by Rivier in regard to the text should have led you to sacrifice it (which would not have offended me at all, knowing the laws of the genre). [...] I am truly sorry and ashamed.⁶

Given the importance of Badiou's text to *Antagonisme*'s problem situation, it is understandable that Darasse did not ultimately sacrifice the text. What truly disturbed the jury, the work mangled beyond comprehensibility or the premise of text and music in conflict? Unfortunately the minutes of the jury's *procès verbal* have only recently

⁵ The announcement from which *Antagonisme* is conspicuously absent may be found here: "Concours du Conservatoire," *Le Monde*, 19 June, 1965, 16.

⁶ Alain Badiou to Xavier Darasse, 19 June, 1965. Msc31.7.

been deposited with the Archives Nationales and so are not yet available for consultation. Darasse gained a second prize in composition the following year with *Antagonisme II*,⁷ a piece for brass quartet, percussion and organ composed upon a similar formal plan to *Antagonisme*.⁸ This piece did not include text, which suggests that the text may have been considered the weak point of the work. Could the piece have succeeded had it not been so severely cut? As has been argued above, the academic music world of 1960s France, including the *concours de Rome*, was not a neoclassical monolith. Messiaen's music was increasingly lauded and Darasse was able to garner a *premier second grand prix* with a strikingly expressionistic *scène lyrique*. Despite attempts to contact two performers named in the sketch material, the precise reason for the cuts are not clear.

The wealth of documentation relating to *Antagonisme* at the Fonds Xavier Darasse suggests that Darasse did not consider the piece a failure, but rather an important document in his compositional career. *Antagonisme* marks the point where Darasse asks what contemporary music might mean for an entire work, including the relationship of the music and text. Darasse carried this sense of musical rigour throughout his life. During a documentary from 1982 dedicated to his work in Toulouse, Darasse discusses early music and attends a rehearsal of contemporary music. He tells the reporter that when he makes early music, he is dedicated purely to that pursuit. Similarly, when he composes contemporary music he is uninterested in music of the past. By way of comparison he remarks that when drinking spirits he doesn't want it "mixed with water or coca-cola," but for "the taste to be strong, to be true." Darasse was not exaggerating; his first contemporary composition was an avant-garde double-shot.

After *Antagonisme*, music appears to go underground in Badiou's work until the *Five Lessons on Wagner* in 2010. But through occasional references, music is a constant companion throughout Badiou's *oeuvre*. One can point to musical references in *The Concept of Model*,⁹ *Theory of the Subject*,¹⁰ *The Handbook of Inaesthetics* and

⁷ *Palmarès : Conservatoire national supérieure de musique, 1965–1966* (Paris: Imprimerie Administrative Centrale, 1966), 4.

⁸ Xavier Darasse, *Antagonisme II*.

⁹ Alain Badiou, *The Concept of Model*, translated by Zachary Luke Fraser and Tzuchien Tho (Melbourne: re.press, 2007), 7.

¹⁰ ———, *Theory of the Subject*, 65, 89, 107, 236, 318, 333.

Logics of Worlds.¹¹ Badiou's latest large-scale work, *Logics of Worlds*, also shares with *Antagonisme* the images of the stone and the ivy. The ivy returns as a motif throughout the second book, "The Greater Logic, 1: The Transcendental" as the emblem of the appearance of an object in a world. Chapters two and nine discussed how Badiou briefly disposes of the issue of the multiplicity of worlds by recognising the nil index of an object outside of a world and the co-belonging of a multiple to several worlds. The majority of the book is, however, dedicated to describing the consistency of a world as such. The skidding of a motorcycle in the distance does not disturb the world of the red ivy, but is immediately recognised by Badiou as having a nil value in relation to it.¹² The ivy is thus not opposed to the motorcycle, but indifferent to it. No negation of the ivy will reveal its context, or vice versa, as Badiou concludes: "From the red of the ivy spread out on the wall, we will never obtain—even as its law—the autumnal shadow on the hills, which envelops the ivy's transcendental reverse."¹³

While the trifid-like ivy of *Antagonisme* forms part of a parodic sketch, the ivy of *Logics of Worlds* is the symbol of a truth's appearance in a world. From menacing truth to the appearance of truth, the red ivy represents Badiou's changing attitude towards musical autonomy. In a radio debate on the topic of "Autonomy or Fusion of the Arts" from 27 January 1967, Badiou claimed that it was not yet possible to pose the problem of musical autonomy.¹⁴ The debate between Badiou, Hubert Damish, Philippe Sollers and Jacques Derrida was chaired by François Wahl. Derrida's intervention was read by Wahl due to illness. In his intervention, Badiou takes the relationships of art, science and ideology as a triangular system in itself. While there are ideologies of science and ideologies of the arts, Badiou argues that there are no sciences of the arts. As a result, "all discourse held on art is ideological." Badiou identifies two ideologies of art: First, the ideology of autonomy, where the rules of art are described in the work itself, such as in Mallarmé's *Coup de dés*.¹⁵ The second ideology is the ideology of transgression, where art accepts rules only to break

¹¹ Badiou uses musical examples throughout *Logics of Worlds*, but see in particular pages 73–90 and 113–68.

¹² ———, *Logics of Worlds*, 126.

¹³ ———, *Logics of Worlds*, 152.

¹⁴ Alain Badiou, Hubert Damish, Philippe Sollers and François Wahl, "Autonomie ou fusion des arts ?," *Dix ans de création dans les lettres et les arts*, 27 January, 1967 (France Culture, 1967).

¹⁵ Stéphane Mallarmé, "Un coup de dés jamais n'abolira le hasard," in *Oeuvres complètes*, edited by Bertrand Marchale, vol. 1, 2 vols. (Paris: Gallimard, 1998), 363–87.

them. *Antagonisme* reflects both of these ideologies. As chapter five has shown, *Antagonisme* is self-explanatory on the surface, semiological level. On the other hand, as chapter seven has shown, it transgresses these boundaries to establish a new level of autonomy at the level of basic musical materials. In this regard, *Antagonisme* reflects the formal autonomy of mathematics:

In general, in the nineteenth century, the ideology through which people thought about scientific practice was positivism [...] . A crisis broke out in this ideology very early, well before the ideological crisis broke out in literature. This crisis [...] broke out first of all in mathematics at the start of the nineteenth century and was progressively reflected upon in the idea of a disjoint, self-regulating and open mathematical writing. In other words [...], mathematical writing at once institutes its own space and is at the same time in a state of transgression in regards to the regulation of that institution. And the ensemble of these concepts was progressively elaborated on the terrain of the representation of science and were transferred into the domain of the representation of art.

Badiou then allows himself to be restrained by his respect for disciplinary boundaries. Badiou admits that the ideologies of autonomy and transgression are imported from science. The autonomy of art can only be formulated as a relative autonomy in relation to ideology and science. Because Badiou does not know of a science of art, he claims that “we do not have the real means to construct the concept of the relative autonomy [of art].” In his conclusion, Badiou recognises that there are cases in science where a problem can be posed but not resolved, and that the autonomy of art is not even one of these problems. In Popper’s terms, Badiou denied that the problem situation of the autonomy of music cannot even be constructed.

That Badiou cannot properly conceive of the relative autonomy of art is a remarkable admission only one year after publishing “Autonomy of the Aesthetic Process.” It may go some way to explaining the relative absence of music from Badiou’s later work. “Autonomie ou fusion des arts” was also broadcast the year before the political events of May 1968. As was discussed in chapter six, the irruption of radical politics in the staid atmosphere of 1960s France forced Badiou to reconsider the emergence of novelty in political, artistic and scientific situations. The Sartrean fidelity lurking in *Antagonisme* once more had a role to play in his philosophy. By 2006 and the publication of *Logics of Worlds*, Badiou had developed a formidable theory of artistic autonomy based in his philosophy of truth, event and the subject. This was no longer a relative theory of autonomy that relied upon a science of art, but

one that sought to understand artistic autonomy on its own terms. Instead of declaring the impossibility of the question of artistic autonomy, Badiou now seems to declare the impossibility, or at least the undesirability, of interdisciplinary relations.¹⁶ In doing so, Badiou is able once more able to propose the concept of musical autonomy and reconcile himself with the stone and the ivy.

¹⁶ Though this thesis has argued that Badiou's philosophy does not address the co-determination of truths, Badiou may be at work on such an elaboration of his theory in a third volume of *Being and Event* called *The Immanence of Truths*. As he stated in a recent interview:

The third volume intends to examine things from the point of view of truths. The first volume asks: what about truths in relation to being? The second: what about truths in relation to appearing? The third will ask: what about being and appearing from the point of view of truths? [...] A truth, from the human or anthropological point of view, is composed of individual incorporations within much larger ensembles. I'd like to know how the world and individuals of this world are presented and arrayed when they are examined from within the very process of truths.

Alain Badiou and Fabien Tarby, *Philosophy and the Event*, trans. Louise Burchill (Cambridge: Polity Press, 2013), 107.

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Appendix 1: Plan of *Antagonisme*

The following table presents a summary of the plans included in Badiou's letters next to the state of Darasse's scores held at the Médiathèque Hector Berlioz. Columns two, five and six are labelled "msc31.7" to indicate that they are summarised from Badiou's letters. Columns one, three and four are derived from the editorial and analytical findings of the preceding thesis.

Episode (module)	Instrument. (Msc31.7)	Bars	Interrelation and (module types) ¹	Dialectical division (msc31.7)	Description of text (msc31.7)
Avant-propos	Narrator	NA			A didactic prelude.
A (a)	Piano	1–7	Retrograde of D (A, B, rc, li)	Initial contradiction	
B	Narrator	NA			Core text
C (c)	Piano Violin	8–20	Development of Gb (A, gi)		
D (a)	Piano Narrator	21–34	(A, B, rc, li)		Fragments of the core text “torn” by silences.
E	Violin	NA	Modal (deleted)		
F (b)	Violin Narrator	35–37	(A, B, ir)		Develops the “ornamental” vocabulary.
Ga (c)	Piano Violin Narrator	38–66	(B, rc)	Central “sonata”	Sketched in opposition to F. Develops the “foundational” vocabulary.
Gb (c)	Piano Violin Narrator	67–107	(A, gi)		
Gc (c)	Piano Violin Narrator	108–35	(FC, li)		
H	Narrator	NA		Resolution	The “synthetic paroxysm” of the two phrases of G. Turns around the theme “outcrop of signs.”
I (b)	Violin. ²	136–40	Recapitulation of F (A, B, ir)		
J (c)	Piano Violin Narrator	141–60	Development of Gc (B, FC, li)		
K (a)	Piano Violin	161–65	Recapitulation of D (A, B, rc, li)		
L (c)	Piano Violin Narrator	166–73	Development of Ga (B, rc)		
M	Narrator			Final contradiction	
N	Piano Violin Narrator	174–85	Echoes of all that has come before.		

¹ ir = Indian rhythms, rc = Rhythmic characters treated with irrational rhythms, gi = Global intervention defining the length of the episode, li = Local interventions, A = Serial row A, B = Serial row B, FC = Free chromatic aggregate.

² Originally solo piano (Msc31.1). The original piano solo forms part of Gc.

Appendix 2: Translation of *Antagonisme*

The following text provides a parallel translation of Alain Badiou's fair copy of the text for *Antagonisme*. Fluency has sometimes been sacrificed for conceptual accuracy. Text and directions that were cut while being transferred to the score have been given in bold. Text that indicates where the text should be placed (such as "the piano stops") and which have been followed in the score have been given in roman typeface.

Avant-Propos

(dit de façon très simple, voix neutre, explicative sans insistance)

Notre jeu n'est pas d'illustrer musicalement une parole. Mais, d'établir entre le sens et le son une controverse, dont l'un et l'autre feront leur propos, **leur matière**, leur trame clandestine. **Le texte produit ainsi la double image d'une musique où l'ordre rigoureux des formes se pare d'une séduction mobile qui doit à la fin—prétend la voix—masquer et contredire cet ordre même. A quoi la musique oppose continuellement [sic] son existence, parfois rompue par ruse, irrécusable autant qu'illicite.** L'unité sonore s'écoute et s'existe, je n'en dis rien. Le texte qui la provoque, **au sens querelleur du terme**, se divise en vocables rassemblés: ceux qui désignent l'ordre—table tutélaire, fondation sans trace, pierre exacte, juridiction—; ceux qui désignent l'ornementation où cet ordre se déploie et se risque—labiales pourrissantes, voile, ville, perte scintillante, lierre rouge—. **Une phrase est médiatrice: affleurement des signes.** De ces mots natifs, **par alliances, dérivations, contrastes**, finit par surgir une Ville imaginaire et déserte, un vieux rêve d'Atlantide retrouvée, image même—**selon le récitant**—de la Musique, en quoi les assemblages les plus durs s'ensevelissent à la fin, et retournent vers les contours flous et sorcelleries d'une interminable Nature. Commençons.

(Attaque du piano) Non ! (... enchaîné sur B)

Foreword

(said very simply, neutral voice, explanatory without insistence)

Our game is not to musically illustrate words, but to establish between sense and sound a controversy from which the one and the other will make their intentions, **their material**, their underground framework. **In this way the text produces the double image of music where the rigorous order of forms is adorned by a mobile seduction that must finally—the voice claims—mask or contradict this very order. To which the music continually opposes its existence, sometimes broken by trickery, as indisputable as it is illicit.** The sonorous unity is heard and exists, I say nothing about it. The text that provokes it, **in the quarrelsome sense of the term**, is divided into collections of terms: those that designate order—tutelary table, foundation without trace, exact stone, jurisdiction—; those that designate the ornamentation where this order is deployed and risked—rotting labials, veil, city, sparkling loss, red ivy—. **One phrase is mediatory: emergence of signs.** From these native words, **through alliances, derivations, contrasts**, ultimately arises an imaginary and deserted city, an old dream of Atlantis rediscovered, the same image—**according to the narrator**—of Music, in which the hardest assemblages are eventually buried and return to the soft contours of an interminable Nature. Let us begin.

(Attack of the piano) No! (... linked with B)

B

Mais non ! Non. (arrêt du piano)

Non. J'explique encore. Je voulais inventer un ordre : **la table tutélaire, la pierre, musicienne à cette condition.** Je voulais imposer une fidélité. Je voulais ... **l'infranchissable en arrière d'un luxe déchiffré,** la fondation sans traces des volutes et chatoiements où l'œuvre se disperse. **Que dire encore ?** Vois la ville : aux voiles suspendues ses jardins qui débordent, par dessus tant de petits murs en terre cuite frappés de soleil mauve. Si foisonnante qu'elle soit, vois par dessous, à des profondeurs fondatrices, la pierre exacte dont elle surgit, comme, entre des lierres rouges, un affleurement de signes. **J'annonçais ainsi que la juridiction de l'ordre, qui s'écoute, s'appartient selon sa perte (...silence) scintillante (...silence) jamais musicienne délivre.**

D

(silence) la table tutélaire, la pierre (silence) luxe si peu, déchiffrée sa fondation sans trace (silence) vois la ville, aux voiles ses jardins (silence) **labiales pourrissantes** et la pierre exacte en dessous, comme (silence bref) entre trois lierres rouges (silence) comme juridiction d'un ordre (silence) sa perte scintillante (silence)

F

Vois la ville. C'était notre royaume selon rythmes unique timbre, intensités. Nous l'inventons pour la perdre. Vois la ville infestée de jardins, toute pierre oubliée, ruisselant seule sous l'infection du jour ! Des voiles haut tendues, malades très haut violettes par dessus l'effondrement rouge des lierres, et toute la ville enfouie par tréfonds végétaux, scintillations, et perte pour parole (très légère hésitation) de son luxe, nous avons omis de nommer même ses fondations, ou ses racines, nous en avons perdu jusqu'à la trace et franchissions indéfiniment un espace poussé par crucifères.

B

But no! No. (The piano stops)

No. I will explain further. I wanted to invent an order: **the tutelary table, the stone, musical under this condition.** I wanted to impose a fidelity. I wanted ... **the insurmountable behind a decoded luxury,** the foundation without traces of the spirals and shimmering where the work is dispersed. **What more is there to say?** See the city: With suspended sails its gardens overflow, above so many little baked earth walls struck by mauve sunlight. As abundant as it is, see below, at its founding depths, the exact stone from which it arises like, between the red ivy, an outcrop of signs. **By this I declare that the jurisdiction of order, which hears itself, is itself by its sparkling (... silence) loss (... silence) that a musician never provides.**

D

(silence) the tutelary table, the stone (silence) such little luxury, its foundation without trace decoded (silence) see the city, its gardens in veils (silence) **rotting labials** and the exact stone below, as (brief silence) between three red ivies (silence) as the jurisdiction of an order (silence) its sparkling loss (silence)

F

See the city. It was our kingdom according to rhythms unique timbre, intensities. We invented it in order to lose it. See the city infested with gardens, every stone forgotten, flowing alone under the infection of the day! The sails stretched high, sickly very high violets above the red collapse of ivies, and all the city buried by the vegetal depths, glistenings, and lost for words (very light hesitation) for its light, we have neglected to name even its foundations, or its roots, we were lost to it since the trace and indefinitely broke through a space studded with crucifers.

G

(ppp) **Ou bien** suis-je, moi qui parle, impuissant à vous faire voir la ville, notre royale instance par musique imprenable quand la dispersion des timbres vient l'assaillir, des rythmes, et que pour vous je soutiens contre un ruissellement sonore la suprématie du visible, seul à se donner comme ordre et fondation, pierre exacte, ou table tutélaire, toutes choses évanouies dans la scintillation qui les veut instaurer, quand je vous dis l'enfouissement par la séduction musicale de la ville rêvée, désormais par son chant infestée de jardins, et qui se voile, sous le lierre, d'intensités phosphorescentes, de timbres, si bien qu'espace déversé perdu pour la parole la ville oublie la nécessité qui la fonde, l'architecture secrète et rigide, l'exactitude souterraine des pierres, la ville que pour vous prétend surprendre l'incertitude musicienne, oublie la table tutélaire sur quoi elle s'édifie, et ne la manifeste plus que par les dehors végétaux, les arborescences violettes très haut par dessus l'effondrement rouge des lierres, la scintillation des voilures tondues très haut, plus haut feuillage surchargé de lierres rouges vous devinez la ville au moment de la perdre, à peine inventée, dans le foisonnement qui la fit naître !

(crescendo continu d'un bout à l'autre. *ff* à la fin)

H

J'ai dit : sur quoi fonder vos juridictions tutélaires sinon la pierre, exacte et séculaire, le sol sans trace, l'impérissable et perpétuelle aventure de ce que viennent menacer les lierres fades, les volutes, les acacias mensongers ? Chassez en effet ces villes ensevelies, où toute insistance sonore s'évapore en sa propre et scintillante image ! Retour à d'anciennes contraintes je vous veux, Tables de la Loi, non vous briser, vous joindre, et que la flexion même de ma voix soit immobile, prévisible, inscrite pour jamais dans cet ordre dont n'affleure aucun

G

(ppp) **Or then** am I, me who speaks, powerless to make you see the city, our royal example impregnable by music when the dispersion of timbres come to assail it, of rhythms, and that for you I uphold against the sonorous torrent the supremacy of the visible, only to be given as order and foundation, exact stone, or tutelary table, all things vanish in the scintillation that establishes them, when I tell you the burying by the musical seduction of the dreamed city, form here on by its song infested with gardens, and which is veiled, beneath the ivy, with phosphorescent intensities, with timbres, so that spilled space lost for words the city forgets the necessity that founded it, the secret and rigid architecture, the subterranean exactitude of the stones, the city that for you claims to suspend the musical uncertainty, forgets the tutelary table on which it is built, and manifests it further only by its vegetal outsides, the high-up violet arborescences above the red slump of ivy, the scintillation of the canopy held up high, even higher foliage overloaded with red ivy you make out the city at the moment of losing it, hardly invented, in the abundance that gave birth to it!

(crescendo continues from one end to the other. *ff* at the end)

H

I said: on what are your tutelary jurisdictions founded if not the stone, exact and secular, the ground¹ without trace, the undying and perpetual adventure of what comes to menace the insipid ivy, the scrolls, the lying acacias? Search out in fact these buried cities, where all sonorous insistence evaporates in its own sparkling image! Return to ancient constraints I want you, Tables of Law, not to shatter you, to join you, so that even the inflection of my voice is immobile, predictable, inscribed for ever in this order from which outcrops no sign.

¹ The word "sol" may also be heard as the fifth pitch in solfege.

signe.

(ton net, définitif)

(definite, marked tone)

J

J

(vois très basse, un peu lasse. Un assez long silence sépare les phrases)

(very low voice, a little tired. A rather long silence separates the phrases)

Je me juxtapose² à ce choix que la musique ignore à force d'inventer ces souvenirs dont je la veux dépendre (...) Toute ville, **et** même si je la rêve, s'inscrit dans la force d'un lieu, arcs de pierre pour y accorder sa juridiction de toitures je vous ai vus, antérieurs de toujours au geste tutélaire du fondateur, **ou de son culte** (...) **Penser, créer, c'est manifester ces contraintes, ce sol de beauté comptable et d'exactitude à quoi se reconnaît ce qui est plus ancien qu'un plaisir d'homme** (...) la musique est l'oubli de ce qui la fonde.

I juxtapose myself to this choice that music is not able to invent these memories from which I want to free it (...) Every city, **and** even if I dream it, is inscribed in the force of a place, arches of stone to accord it its jurisdiction of rooves I have seen you, anterior to ever in the tutelary gesture of the founder, **or of his cult** (...) **To think, to create, is to manifest these constraints, this ground of countable beauty and of exactitude in which is recognised what is older than a pleasure of man** (...) music is the forgetting of what founds it.

L

L

Vois la ville s'évanouir au couchant de ses feuilles ... Cendreuse, elle se survole d'oiseaux rouges, et l'entoilure des lierres s'efface, se mêle aux ruines qui **la** portent. Par dessus cette perte scintille encore l'enchevêtrement syllabaire. Les voix croisées l'emportent à la fin. L'ordre nocturne déploie l'autre évidence, celle dont provenait, depuis toujours, la juridiction voilée de la musique. **Au fil des pierres oubliées, nul n'exige au delà de la dispersion tutélaire.** La protection des eaux nous reconduit, en deça de la ville, vers ce monde d'aucune image **pour lequel la musique n'a pas fini de témoigner** : l'Ordre et l'Ornement ne s'y peuvent plus distinguer. La musique est ce crépuscule immémorial.

See the city fade in the sunset of its leaves³ ... Ashen, it is skimmed over by red birds, and the lining of the ivy withdraws, mixes with the ruins that bear **it**. Yet above this twinkling loss, the syllabic tangle. The crossed voices take it away at the end. The nocturnal order deploys the other evidence, from which has come, since always, the veiled jurisdiction of music. **Along the forgotten stones, nothing is required beyond the tutelary dispersion.** The protection of the waters escorts us, below the city, towards this world of no image **to which music has not finished bearing witness**: Order and Ornament can no longer be distinguished in it. Music is this immemorial twilight.

M

M

² A play on the rhetorical gesture "Je me pose" or "I ask myself."

³ Also, a reference to the leaves of a book or score.

La nuit prend possession de toute pierre, de tout lierre. Des tables et des voiles, elle ne laisse subsister, qui recommence, s'efface, se renoue, que l'immobile affleurement des signes.

N

(comme posé sur la musique, purement sonore)

(silence) Affleurement des signes (... silence) **(très lent)** affleurement des signes.

The night takes possession of every stone, of every ivy. Of the tables and veils it leaves, what recommences, erases itself, resumes, only the immobile outcrop of signs.

N

(as though placed on the music, purely sonorous)

(silence) Outcrop of signs (... silence) **(very slow)** outcrop of signs.

Appendix 3: Score of *Antagonisme*

The following score was originally typeset in an A3 format for better legibility when performing. It is provided here as an A4 reduction for ease of study. Following the constructive editing rationale explained in chapter eight, two versions of the first episode have been provided. The page labelled “Aa” gives the first page of the manuscript score Msc31.2 held at the Médiathèque Hector Berlioz, which was not performed at the work’s première on 18 June, 1965. The page labelled “Ab” gives the version of the episode found in the sketches that agrees with the rewritten version of episode D that was performed at the première. The performer may choose to begin at episode D and so perform the chronologically most advanced version of the work. Alternatively, they may choose to perform the work from the beginning, using episode Aa and so perform the most complete version provided by the composer. However, performing the work from the beginning using episode Ab will provide the author’s most musically-consistent response to Badiou’s text.

XAVIER DARASSE

ANTAGONISME

pour violon, vibraphone, marimba, récitant et piano

poème par Alain Badiou

Edited and typeset by Matthew Lorenzon © 2014

PLAN GENERAL

- Avant-propos (texte)
- A Piano
- B Récitant
- C Piano Violon (développement central (b))
- D Piano Récitant
- E Violin (supprimé)
- F Violon Récitant
- G Développement central (a), (b), (c)
- H Récitant
- I Violon
- J Souvenir du développement central (c)
- K Piano
- L Souvenir du développement central (a)
- M Récitant
- N Coda

ANTAGONISME

Poème par Alain Badiou

Xavier Darasse

AVANT-PROPOS *[dit de façon très simple, voix neutre, explicative sans insistance]*

Notre jeu n'est pas d'illustrer musicalement une parole. Mais, d'établir entre le sens et le son une controverse, dont l'un et l'autre feront leur propos, leur trame clandestine.

L'unité sonore s'écoute et s'existe, je n'en dis rien.

Le texte qui la provoque se divise en vocables rassemblés:

ceux qui désignent l'ordre :

table tutélaire
fondation sans trace
pierre exacte
juridiction

ceux qui désignent l'ornementation où cette [sic] ordre se déploie, se risque :

labiales pourrissantes
voile
ville
perte scintillante
lierre rouge

De ces mots natifs finit par surgir une ville imaginaire et désertée, un vieux rêve d'Atlantide retrouvée, image de la Musique, en quoi les assemblages les plus durs s'ensevelissent à la fin et retournent vers les contours flous et sorcelleries d'une interminable Nature.

Aa

Moderato

Mais non !

Non !

Non.

B J'explique encore. Je voulais inventer un ordre. Je voulais imposer une fidélité.

Je voulais la fondation sans traces des volutes et chatoiements où l'œuvre se disperse.

Vois la ville : aux voiles suspendues ses jardins qui débordent, par dessus tant de petits murs en terre cuite frappés de soleil mauve.

Si foisonnante qu'elle soit, vois par dessous, à des profondeurs fondatrices, la pierre exacte dont elle surgit, comme, entre des lierres rouges, un affleurement de signes.

ANTAGONISME

Poème par Alain Badiou

Xavier Darasse

AVANT-PROPOS *[dit de façon très simple, voix neutre, explicative sans insistance]*

Notre jeu n'est pas d'illustrer musicalement une parole. Mais, d'établir entre le sens et le son une controverse, dont l'un et l'autre feront leur propos, leur trame clandestine.

L'unité sonore s'écoute et s'existe, je n'en dis rien.

Le texte qui la provoque se divise en vocables rassemblés:

ceux qui désignent l'ordre :

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fondation sans trace
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juridiction


ceux qui désignent l'ornementation où cette [sic] ordre se déploie, se risque :

labiales pourrissantes
voile
ville
perte scintillante
lierre rouge

De ces mots natifs finit par surgir une ville imaginaire et désertée, un vieux rêve d'Atlantide retrouvée, image de la Musique, en quoi les assemblages les plus durs s'ensevelissent à la fin et retournent vers les contours flous et sorcelleries d'une interminable Nature.

Ab

Moderato



4

Mais non !

Non !

Non.

B J'explique encore. Je voulais inventer un ordre. Je voulais imposer une fidélité.

Je voulais la fondation sans traces des volutes et chatoiements où l'œuvre se disperse.

Vois la ville : aux voiles suspendues ses jardins qui débordent, par dessus tant de petits murs en terre cuite frappés de soleil mauve.

Si foisonnante qu'elle soit, vois par dessous, à des profondeurs fondatrices, la pierre exacte dont elle surgit, comme, entre des lierres rouges, un affleurement de signes.

C

Libre ♩ = 104

Vln

8

pizz

arco

reprise jusqu'à

espressivo

sul G

ff

mf

f

pp sul ponticello

accelerando

mf

Pno

ppp

8va

s.fff

s. ff

pp

8va

pp

Ped. avant de jouer

Vln

14

p

5

7

f

mf

3

5

Pno

f

8va

mf

8va

Vln

17

pizz.

3

sf

sf

mp

f

arco sul ponticello

5

3

mf

3

ppp

Pno

mp

8va

p

pp

sempre *pp*

8va

D

♩ = 76

Pno

21

3

fff

s. ff

san jouer reprendre l'accord

pp

Réc.

la table tutélaire, la pierre

luxe si peu,

déchiffré sa fondation sans trace

Pno

26

ff

3

ff

Réc.

vois la ville, aux voiles ses jardins

Ped.

et la pierre exacte en dessous

8vb

Pno

31

8^{va}

p

10

f

8^{va}

8^{va}

Réc.

mf

comme entre trois lierres rouges comme juridiction d'un ordre sa perte scintillante

F

♩ = 120

35

Vln

pp

f

mp

ff

Réc.

Vois la ville C'était notre royaume selon rythmes-unique-timbre, intensités.

Vln

5

7:8

sul G

ppp

mp

f

mf

f

p

mf

mp

mf

ff

f

mf

ff

p

p

tr

Réc.

Nous l'inventions pour la perdre Vois la ville infestée de jardins, toute pierre oubliée, ruisselant seule

Vln

mp

mf

pp

Réc.

sous l'infection du jour ! Des voiles haut tendues, maldives très haut violettes par dessus l'effondrement rouge des lierres, et toute la ville enfouie par tréfonds végétaux, scintillations, et perte pour parole [hésitation...] de son luxe, nous avons omis de nommer même ses fondations, ou ses racines, nous en avons perdu jusqu'à la trace et franchissions indéfiniment un espace poussé par crucifères.

Ga

38

Vln

col legno

Pno

sempre 8^{va}

pp

3

5

41

sul ponticello

piz

arco

p

3

sf

3

Pno

44

Vln

arco

Pno

pp *8va* - - -

ppp *pp* *mp*

47

Vln

souridine

Vib.

Mrm.

Pno

pp *8va* - 7 *p* *pp* *5* *3* *8va* - - 7

50

Vln

Vib.

Mrm.

Pno

Réc.

8va - 1

Et puis suis-je, *ppp*

53

Vln

Vib.

Mrm.

Pno

Réc. moi qui parle, impuissant à vous faire voir la ville, notre royale instance par musique imprenable quand la dispersion des timbres vient l'assaillir, des rythmes,

56

Vln

Vib.

Mrm.

Pno

Réc. et que pour vous je soutiens contre un ruissellement sonore la suprématie du visible, seul à se donner comme ordre et fondation, pierre exacte ou table tutélaire,

59

Vln

Vib.

Mrm.

Pno

Réc. toutes choses évanouies dans la scintillation qui les vaut instaurer, quand je vous dis l'enfouissement par la séduction musicale de la ville rêvée,

61

Vln

Vib.

Mrm.

Pno

Réc.

désormais par son chant infestée de jardins, et qui se voile, sous le lierre, d'intensités phosphorescentes, de timbres,

sempre ppp

[crescendo poco à poco]

63

Vln

Vib.

Mrm.

Pno

Réc.

si bien qu'espace déversé perdu pour la parole la ville oublie la nécessité qui la fonde, l'architecture secrète et rigide, l'exactitude souterraine des pierres,

sempre pp

ppp

65

Vln

Vib.

Mrm.

Pno

Réc.

la ville que pour vous prétend surprendre l'incertitude musicienne, oublie la table tutélaire sur quoi elle s'édifie, et ne la manifeste plus que par les dehors

mf

prendre baguettes dures

Gb

83

Vib.

Mrm.

Pno

Réc.

qui la fit naître !

[ff]

86

Mrm.

Pno

ff *f* *mf*

ff *f* *mf*

89

Mrm.

Pno

mp *p* *pp* *ppp*

mp *p* *pp* *ppp*

mp *p* *pp* *ppp*

Andante ♩ = 60

94

Vln

Vib.

Mrm.

Pno

moteur

piz piz vibré arco

mp *p* *mp* *mf* *mp*

pp

ff *f*

ff

100

Vln

Vib.

Mrm.

Pno

p

mf

p

mf

f

3

5

7

5

3

5

104

Vln

Vib.

Mrm.

Pno

piz

arco

piz

arco

mp

p

pp

ppp

pp

3

6/4

6/4

Gc ♩ = 176 Les altérations ne valent que pour la note.

108

Pno

ff

mp

ff

p

mf

f

fff

mp

mf

f

mp

mf

4/4

2/4

4/4

6/4

112

Pno

mp

f

mf

ff

mp

p

mf

mp

f

ff

f

ff

ff

ff

fff

4/4

5/4

5/4

115

Pno

ff

mf

ff

f

fff

ff

ff

mp

mf

p

mf

mp

ff

ff

4/4

5/4

5/4

117

Pno

fff

mf

Misterioso ♩ = 104 *mp*

subito p
sempre 8^{va}

3 5 3 7 3 7

sf *pp* *f* *p*

3 7 3 5 *subito p*

f *ff*

f *ff* *subito pp*

6 7

ff *ff* *mf* *ff* *ff* *mf*

mf < *f*

6 6 6 7 6

le plus vite possible
le plus fort possible
MD

MG

118

Pno

10

119

Pno

subito pp

8^{va}

120

Vib.

2 baguettes dures

Mrm.

2 baguettes dures *sempre ff*

Pno

sempre 8^{va}

sempre 8^{va}

faire les reprises jusqu'à le début de mesure 128

123

Vln

Vib.

Mrm.

127

Vln

tr

ff

Vib.

tr

ff

Mrm.

tr

tr

Pno

fff

8^{va} - - 1

8^{va} 1

poco accelerando

147

Vln *mf* *mp* *p* *pp*

Vib. *p* *mf* *f* *ff* *p* *pp*

Mrm. *mp* *f* *f* *ff* *ff* *pp* *pp*

Pno *pp* *ppp* *8va* *stacatto* *p*

Réc. que la musique ignore à force d'inventer ces souvenirs dont je la veux déprendre

153

Vln *mp* *f* *accelerando poca*

Vib. *mp* *mf* *3 baguettes*

Mrm. *mp* *mf* *f* *2 baguettes*

Pno *mf* *8va* *f*

Réc. Toute ville, et même si je la rêve, s'inscrit dans la force d'un lieu, arcs de pierre pour y accorder sa juridiction de toitures.

158

Vln *f* *tr* *ff*

Vib. *f* *ff* *pp cresc.* *ff*

Mrm. *3 baguettes* *ff* *pp cresc.* *ff*

Pno *ff 8va* *pp cresc.* *5* *5* *5* *5* *ff*

Réc. Je vous ai vus, antérieurs de toujours au geste tutélaire du fondateur.

K ♩ = 80

161

Vln

Vib.

Mrm.

Pno

3

fff

repandre l'accord sans jouer

pp

8va

10

Ped.

pp

L plus vite ♩ = 112

166

Vln

Vib.

Mrm.

Pno

pp lointain

5

3

pp lointain

5

sempre pp

5

3

5

3

6

3

8va

[lento]

Réc. Vois la ville s'évanouir au couchant de ses feuilles ... Cendreuse, elle se survole d'oiseaux rouges,

170

Vln

Vib.

Mrm.

Pno

pp

rallentando

sul ponticello

3

3

5

3

5

5

5

Réc. et l'entolure des lierres s'efface, se mêle aux ruines qui la portent. Par dessus cette perte scintille encore l'enchevêtrement syllabaire.

M Les voix croisées l'emportent à la fin. L'ordre nocturne déploie l'autre évidence, celle dont provenait, depuis toujours, la juridiction voilée de la musique. La protection des eaux nous reconduit, en déça de la ville, vers ce monde d'aucune image : L'Ordre et l'Ornement ne s'y peuvent plus distinguer. La musique est ce crépuscule immémorial.

174

Vln *espressivo* *p* 3 5 3

Vib. *pp* 3

Mrm. *ff* 6 6 3 baguettes de timbales

Pno *8va*

178 ♩ = 56

Vln *pp* 3

Vib. 3 *pp*

Mrm. *mf* *pp*

Pno *14:16* subito stacatto *ff*

Réc. La nuit prend possession de toute pierre

182

Vln *sul ponticello* *p* 5 3 *pp* *rallentando*

Vib. 3 *p*

Mrm.

Pno *8va* *p* 3 *subito ff*

Réc. de tout lierre. Des tables et des voiles, elle ne laisse subsister, qui recommence, s'efface, se renoue que l'immobile affleurement des signes.

[comme posé sur la musique, purement sonore, très lent]

2. affleurement des signes ... affleurement des signes.